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Clearwater

Newsletter for Water and Wastewater Operators

Spring 2002

Spring 2002
Volume XXXII, Issue 1

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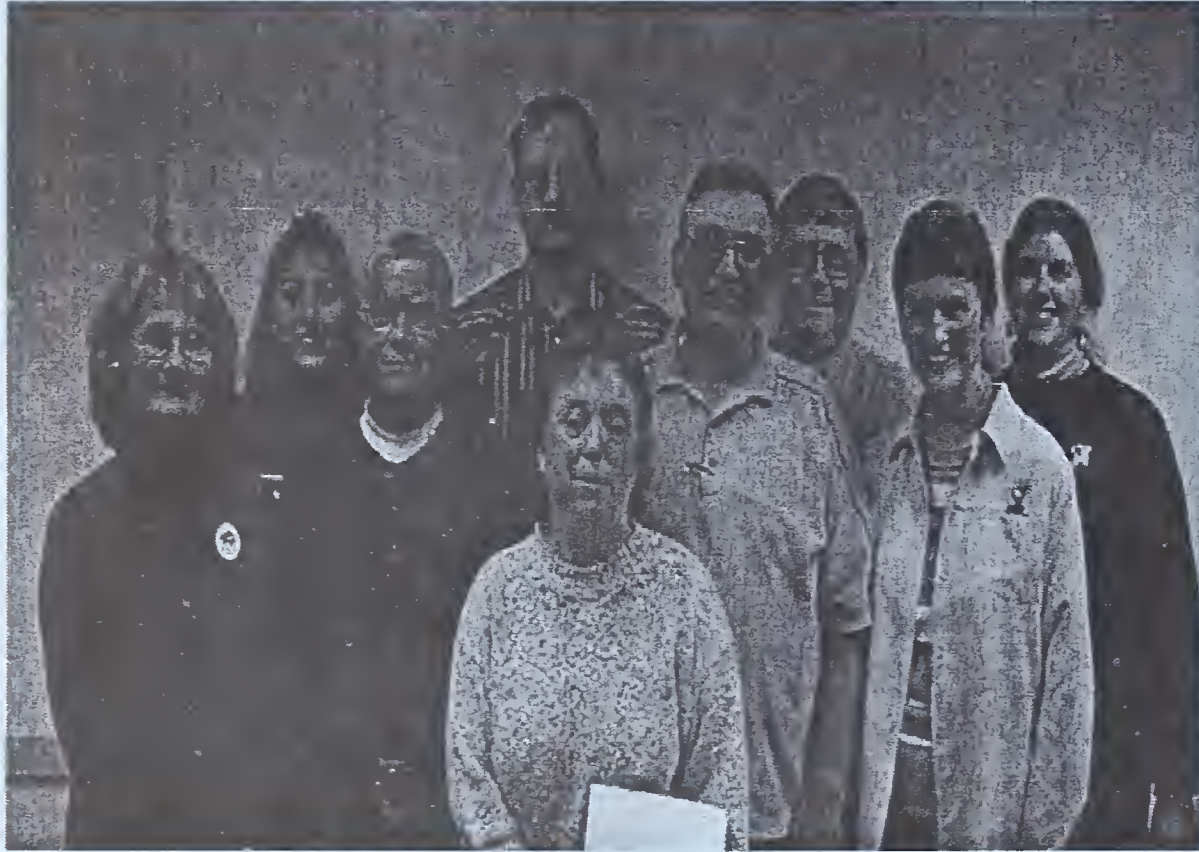
No, this isn't modern day Montana, although it may seem like it to many of us around the state who are trying to keep reservoirs full and supply people with good clean drinking water. We all need to be aware of how serious a condition drought can be please visit the following websites to learn more about Montana drought and how you can stay better prepared.

<http://nris.state.mt.us/drought/>

<http://www.deq.state.mt.us/wqinfo/DW/Index.asp>



**SAY HELLO TO YOUR
WATER AND WASTEWATER OPERATORS'
ADVISORY COUNCIL
AND DEQ OPERATOR CERTIFICATION STAFF**



(from l to r) Shirley Quick, Certification Program Manager (444-2691); Ashley Finnegan, CEC Coordinator (444-4584); Lee Leivo, Bigfork Water & Sewer District Manager (837-4566); Reta Therriault, Exam Coordinator (444-3434); Steve Ruhd, Conrad Public Works Director (271-5821); Bob Cottom, Dillon Utility Manager (683-4245); Roger Thomas, Billings Wastewater Supervisor (657-8357); Joni Emrick, Kalispell Wastewater Superintendent (758-7817); and Carol Reifschneider, PhD, MSU-Northern Professor (265-4126). Council member not shown is Jim Melstad, DEQ Public Water Supply Section Supervisor (444-5315).

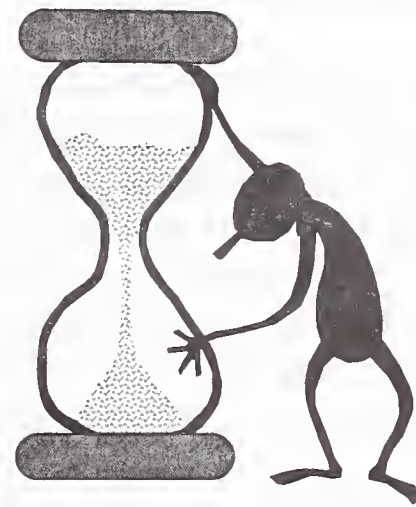
Gives us a call, we're all happy to answer your certification questions!

CEC NAGGINGS

(THAT YOU MAYBE SHOULDN'T IGNORE)

By now each of you should have received the CEC (continuing education credits) status reports which were sent out in December. Remember these credits are due by June 30, 2002. This leaves only a few months to complete the requirements. There are several ways to obtain the needed CEC credits. You may attend an approved course (the METC calendar came out in December with courses for January through June), complete an approved correspondence course (these are also listed in the METC calendar), or apply for a course to be approved by our CEC approval committee. Operators-in-training are not required to earn CEC's.

Application forms were mailed to existing and interested ATPs (Approved Training Providers) on December 12th. Please note



that these applications are due by April 1, 2002. Why not fill it out now and send it in before it slips your mind?

If there are any problems or updates needed on the CEC status reports, information on any of the credit options, or additional ATP application forms wanted, simply contact Ashley Finnegan, Water/Wastewater Operator Certification Office clerk at (406) 444-4584. We're here to help!



CEC COURSE APPROVAL

by Ashley Finnegan, WWOC Continuing
Education Credit Coordinator

The Department of Environmental Quality's Operator Certification Program and Continuing Education Credit Review Committee (CECRC) have worked hard to make the Continuing Education Credit (CEC) process as painless for operators as possible. Therefore the following information should help you understand the CEC approval process better.

There are three types of educational offerings that qualify for continuing education credits. These include **Individual Training Courses**, which are courses or conferences specifically approved for credit by the department. Every CEC period, the department approves training courses or conferences offered by **Approved Training Providers** (ATP). **Alternative Training Courses** include correspondence courses, whether in the traditional sense, or one of the newer technological types like online Internet, CD-ROM, or video based courses. Let's look at the three types of courses and their individual course approval processes.

The process to have an **Individual Course** approved is a fairly simple one. First, request an Application for Approval of Individual Training Courses form from the Certification Office (406-444-4584). This application is also available online at www.deq.state.mt.us/pcd/csb/cert/index.asp. The form must be completely filled out and notice of approval of the Application must be obtained before CECs are granted. Although this application is very detailed, it can't be stressed enough that it must be completed fully for your hard-earned credits to be applied.

If an **Approved Training Provider** (ATP) is giving the training, the individual training process does not need to be followed. The ATP will have CEC Report

Forms available at the course or conference, which will be filled out on site by the operator and then submitted by the ATP to the Certification Office. It can't get any easier than that.

Finally, to get an **Alternative Course** approved, it is required for training provider to complete and submit the Alternative Training Approval Form IND-5-ALT. This form can be obtained from the Certification Office at DEQ (406-444-4584) or on the Internet site listed above. The application will then be approved by the CECRC. Please note however that any alternative course must be fully completed and proof of completion from the course provider must be sent to the Certification Office for your credits. Partial completion will not earn partial credits.

Once the Certification Office receives these forms, we try to process them as quickly as possible, although you may not always think this is the case. All operators are then sent a response as to approval or denial, a CEC report form, course approval number, number of CECs, and a reminder that CEC report forms need to be completed whenever requesting CECs for training. To ensure that your time and money is well spent, check with us or the training provider to ensure courses approval before you take it. Remember that if you take courses that aren't pre-approved, you need to complete the necessary forms to request approval. Contact the Certification Office at DEQ (406-444-4584) or on the Internet site listed above for more information on course approval.

Hopefully this article has answered your questions on obtaining course approval. We do try to make it as simple as possible here at the Certification Office, but always feel that you can contact us with any problems you are having. We are here to serve you.

Reflections in the Ripples

State Revolving Fund News

The Department of Environmental Quality State Revolving Fund (SRF) programs work in conjunction with the Department of Natural Resources and Conservation (DNRC) to protect the public health of Montana citizens and preserve Montana's water quality. These programs help communities plan, finance, and construct new and improved water and wastewater treatment systems and support nonpoint source (NPS) projects. The following information will provide a brief overview of some of the communities that have projects underway.

Drinking Water State Revolving Fund (DWSRF) Loan Program

Providing safe drinking water is an important goal of the Montana DWSRF program. To date, approximately 38 loans totaling \$47 million have been committed to fund a variety of projects ranging from distribution system improvements to new surface water treatment plants.

Affordable financing for many public water systems, particularly small water systems, is difficult to secure. The United States Congress recognized this problem and established the DWSRF as part of the reauthorization of the Safe Drinking Water Act in 1996. As a result, the Environmental Protection Agency (EPA) was given spending authority to provide grants to states to establish a loan fund to provide financial assistance to public water systems. In turn, states must provide matching funds equal to 20% of the federal grants.

Loan terms are typically 4% for 20 years, but interim financing options are available to drinking water systems at lower rates and for shorter terms. DWSRF also funds a number of activities separate from projects, such as technical assistance and operator certification programs, to help communities achieve their goal of providing safe drinking water.

Current active projects include:

Philipsburg	Spring Dev./Dist.	Fort Peck	WTPUpg/Dist
Havre	WTP Upgrade	Laurel	WTP Upgrade
Great Falls	Dist/Eng	Helena	Stor Tank/Dist
Cut Bank	WTP Upgrade	Colstrip	Dist
East Helena	Dist	Conrad	WTP Upgrade
Highwood	Well, Dist/Storage		

For further information about the DWSRF program, contact Mark Smith, DWSRF program manager at 406-444-5325.

Water Pollution Control State Revolving Fund (WPCSRF) Loan Program

The Montana WPCSRF program goals are to safeguard the health of Montana citizens through protection of our valuable water resources and preservation of Montana's pristine environment. More than \$94 million in low0interest loans have already been utilized by communities, districts and agencies for collections systems, treatment facilities and NPS projects in Montana since the program's inception in 1992.

The following WPCSRF funded projects are currently underway:

Big Sky	SBR WWTP	Park City	WWTP
Augusta	WWTP/Coll. Sys.	Colstrip	Coll. Sys.
Conrad	WWTP	Helena	WWTP
Missoula	WWTP/Coll. Sys.	Big Timber	WWTP/Coll. Sys.
Drummond	Coll. Sys.	East Helena	WWTP Design
Belgrade	WWTP	Corvallis	WWTP
Columbia Falls	Solids Handling	Choteau	WWTP/Coll. Sys.
Manhattan	WWTP/Coll. Sys.	Lolo	WWTP
Great Falls	Solids Handling	Geraldine	WWTP
Sweet Grass	WWTP	Kevin	Refinance
Red Lodge	WWTP	Whitewater	WWTP
Lavina	WWTP	Ashland	WWTP
Harrison	WWTP	Lincoln	WWTP

For further assistance or information about the WPCSRF program, contact Todd Teegarden, WPCSRF program manager, at 406-444-5324. Or, for information about either of these programs or projects, please contact: DEQ at 406-444-6697 or DNRC at 406-444-6668; or, visit either program on the internet at: www.deq.state.mt.us or www.dnrc.state.mt.us.

Technical Assistance Activities

The WPCSRF program provides technical assistance and training for operators and managers of public utilities. WWTPs that have trouble meeting permit limits or obtaining funding for system improvements can rely on DEQ to provide advice and financial support to bring their systems into compliance with state and federal regulations. Please contact Bill Bahr at 406-444-5337 for assistance with your system problems.

Infrastructure Financing Workshops

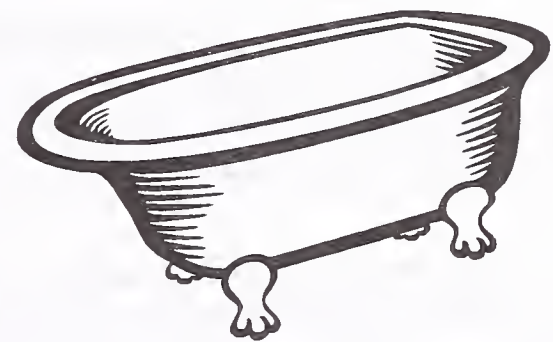
Planning to improve your water or wastewater facilities, or your distribution or collection systems? Consider attending the WASACT workshops on Infrastructure Financing in your area of the state next month. The workshops are free and sponsored by state and federal funding agencies to help communities apply for grants and loans to pay for the projects. Costs for many of these projects can range from tens of thousands to millions of dollars and most communities don't have huge piles of cash laying around, so financing support through loans and grants is critical. The daylong workshops are scheduled for : Missoula on March 5th, Helena on March 7th, Wolf Point on March 12th and Billings on March 14th. Contact the DEQ SRF programs for more information.

Who built the first bathrooms, and where?

Between the discovery of sex and the invention of television, you won't find anything more important on the timeline of indoor human history. So who, and where?

No, it wasn't King John. And they didn't originate in Flushing, New York. Bathrooms actually come from a place famous for its pipes, but of another kind: Scotland, known more for bagpipes than plumbing.

The place was the Orkney Islands, off the Scottish coast, ten millennia ago, where some nameless individuals finally took a stand for comfort. (Actually, I assume they took a seat.) They left their mark in the annals of latrinity by throwing together a primitive drain system that carried wastes directly from their huts to the local stream – the first in-house outhouse. It would take another 10,000 years for folks to notice that this created as many problems as it solved, waste-wise.



Training awards.

Three local environmental professionals, Scott Anderson, Dave Aune and Donna Jensen, were presented the 2001 Bahr Environmental Trainer of the Year award at the 68th Annual Fall Water School for Operators and Managers held at MSU-Bozeman in September. The award acknowledges their long-term, outstanding efforts to promote, design and provide training opportunities for professionals serving in Montana water and wastewater utilities.

Anderson, a Professional Engineer, serves as president of Anderson-Montgomery Consulting Engineers and received his Bachelor of Science degree in civil engineering from the University of Idaho. Aune, a Professional Engineer, is the Water Resources Project Manager for Entranco and received his Bachelor of Science degree in civil engineering from Montana State University. Jensen, Senior Associate for the Cadmus Group, received her Bachelor and Master of Science degrees in microbiology from Colorado State University.

All three developed operator training and certification programs while employed by the Montana Department of Health and Environmental Sciences, now the Department of Environmental Quality. Those programs later provided the basis for establishing the Montana Environmental Training Center. After leaving DHES to work in private consulting, all three have continued their support for excellent training programs helping Montana communities provide safe drinking water, protect the health of Montanans and preserve the quality of Montana waters.

FINANCIAL AND MANAGERIAL ASSISTANCE FOR YOUR PUBLIC WATER SUPPLY - DO YOU NEED IT?

Are your rates and charges adequate? Is your water system budget in good shape? Do you need help preparing an emergency plan? Do you need to make major improvements to your water system, but don't know how to get started? Do you want to establish better policies and procedures? Or, maybe you would just like the advice of an experienced operator in managing your water system.

IF SO, HELP IS AVAILABLE - AND AT NO COST TO YOUR WATER SYSTEM!

DEQ currently funds a contract to provide financial and managerial assistance to small public water supply systems. This service is provided by State Revolving Fund money through the "set-aside" provisions of the Safe Drinking Water Act. The contract was awarded to the Midwest Assistance Program (MAP) last March, and so far MAP has visited approximately 25 water systems. Owners, operators, clerks and managers of the systems using this service say they have found the information gained during these visits to be very helpful in both their daily operations and long-term planning.

MAP has put together a team of people to address the needs of Montana's water systems. The team consists of Bill Leonard, Paul Torok, Judy Sass, Kristi Kline, Allan Kelm and Kevin Kundert. Each team member has unique skills and qualifications that can be applied to help with the many problems facing small water systems.

Assistance typically starts out with a telephone call, followed by a visit from one of the team members. If the system's problems are clearly understood, assistance can start right away. If the system's problems are more general, or not well understood, the team member will ask questions on the management and operation of the water system. Based on the identified needs, the team member provides advice, forms, booklets and other materials, along with a thorough explanation.

This assistance is intended to be just that - help in managing and operating a water system effectively and efficiently. This is not a compliance effort - so please be assured that DEQ will not use these visits as a means of checking up on your system.

All you need to do to start is to call, e-mail or write to:

Gary J. Wiens, DEQ Contract Manager
Drinking Water State Revolving Fund Loan Program
Planning, Prevention and Assistance Division
Department of Environmental Quality
P.O. Box 200901
Helena, MT 56920-0901
(406) 444-7838
gwiens@state.mt.us

Feel free to call if you have any questions or wish to discuss this assistance further.

Montana Public Water System Security & Internet Site Advisory

As the worldwide usage of the Internet has increased, so too have the vast resources available to anyone online. Among the information available to Internet users are details on critical infrastructures, emergency response plans and other data of potential use to persons with criminal intent. Search engines and similar technologies have made arcane and seemingly isolated information quickly and easily retrievable to anyone with access to the Internet.

The purpose of this advisory is to heighten community awareness of this potential problem and to encourage Internet content providers to review the data they make available online. For safety and security information that requires wide-dissemination and for which the Internet remains the preferred means, security officers are encouraged to include in community security plans mechanisms for risk management and crisis response that pertain to malicious use of open space information.

When evaluating Internet content from a security perspective, some points to consider include:

1. Has the information been cleared and authorized for public release?
2. Does the information provide details concerning utility safety or security? Are there alternative means for delivering sensitive security information to the intended audience?
3. Is any personal data posted (such as biographical data, addresses, etc.)?
4. How could someone intent on causing harm misuse this information?
5. Could this information be dangerous if it were used in conjunction with other public available data?
6. Could someone use the information to target your personnel or resources?
7. Many archival sites exist on the Internet, and that information removed from an official site might nevertheless remain publicly available elsewhere.

On the local level you can:

1. Limit access to the water treatment plants, booster stations and reservoirs by securing these facilities. Change the locks if this hasn't been done in the last ten years. Register keys!
2. Make certain that all plans that pertain to the facilities are not available in the city offices or at consulting engineers where illegal access can be obtained.
3. Discontinuing all tours and public access to these facilities.
4. Know who comes and goes from any public facilities by heightened employee awareness.

Report Computer or facility intrusion immediately to your local authorities and FBI.



PWS-6 REVIEW PROTOCOL

12/06/00

INTRODUCTION

Circular PWS-6 describes the requirements for gathering and preparing information necessary for DEQ review of new drinking water sources. An adequate review can only be completed when information is presented that describes a proposed source in relation to other physical and cultural features in the area.

PWS-6 HISTORY

A consideration of source water protection has been required for all new proposed public water sources for the past two decades. These requirements were originally found in the language of "*DHES Circular PWS-1 Standards for Water Works*" and its predecessor known as the "Ten State Standards" dating back to 1982. To meet the requirements of those design standards, information was required to be included in the design report that described aquifer characteristics and identified potential sources of contamination. The standards are now described in Circular DEQ 1 and the introduction to the section concerning water sources is excerpted below (the language in Circular DEQ 3 Standard for Small Water Systems is similar).

"In selecting the source of water to be developed, the designing engineer, (sic) must prove to the satisfaction of the reviewing authority, that an adequate quantity of water will be available, and that the water which is to be delivered to the consumers will meet the current requirements of the reviewing authority with respect to microbiological, physical, chemical and radiological qualities. Each water supply should take its raw water from the best available source which is economically reasonable and technically possible." (*Circular DEQ 1 Standards for Water Works. MT DEQ 1998*)

Circular PWS-6 was written to add definition and consistency to the review process; it does not create additional requirements. Engineering staff in the public water supply supervision section (PWSS) authored it. PWS-6 is also the mechanism by which the source water assessment requirement is met for new water sources as required by the SDWA. Review authority for new wells rests with the PWSS.

REVIEW PROTOCOL

The source water protection section will provide review comments to the PWSS on all PWS-6 reports, upon request. Review comments will be based on, 1) a

completeness review using the appropriate PWS-6 REVIEW CHECKLIST (see attached), and, 2) a screen for potential contaminant sources to which the proposed source appears to have high susceptibility. The intent of source water protection section review is to ensure adequate information is provided by the new source developer to allow completion of a source water delineation and assessment report (SWDAR). While it remains a goal, it is not necessary that the PWS-6 information be formatted as a SWDAR nor is it necessary to include a susceptibility assessment. Written comments from the source water protection staff will be forwarded along with a memo to the PWSS reviewer. The PWSS reviewer retains the responsibility for addressing the adequacy of a proposed source.

Source water protection section technical staff is available to answer questions concerning report format, requirements, or information sources and can be reached at (406) 444-6697. PWS-6 report prepares are encouraged to utilize the appropriate template and checklist when addressing PWS-6 requirements

Instructions for completing a PWS-6 report can be viewed and downloaded from the Internet at

<http://www.deq.state.mt.us/wqinfo/SWP/Circulars.asp>

DEQ Circulars can be viewed and downloaded from the Internet at

<http://www.deq.state.mt.us/wqinfo/Circulars.asp>

Information about potential contaminant sources can be found and mapped at

<http://nris.state.mt.us/wis/swap/swapquery.asp>



Laurel and Hardin Filter Evaluation

By Matt Usuriello, Water Quality Specialist

Filter evaluations on November 5th and 6th, through combined efforts of the Montana DEQ and Midwest Assistance Program, (MAP), were conducted at the city of Laurel and city of Hardin water treatment facilities. Tim Miller, (MAP), John Camden and Matt Usuriello (DEQ) conducted the filter evaluations with assistance from operators at both facilities. These two systems are surface water facilities that utilize a conventional treatment process. The purpose of the evaluations was to identify any problems that may currently exist with the filters that would interfere with the efficiency of the filtration process, including the backwash cycle.

Seven depths of the filter media were cored for analysis. The gravel layers were not cored. Two sets of samples were taken from different representative areas of the filters at both plants. One set before the backwash and another after the backwash. The sampled cores are then washed with 500ml of distilled water, (100ml at a time). The wash water was then tested for the level of turbidity on each core at their different depths.

The Laurel Water Plant evaluations gave the operators an in depth overview of the performance of the filter that was analyzed. Results showed that certain media of the filter weren't working as well as other media and the goal of course, is to have more turbidity removed at the top of the filter bed than at the bottom. A general conclusion was formed on site, that the backwash process on the filter in question was not completing its job and the backwash cycle should run a bit longer. Another problem for the Laurel plant is older existing piping/pumps for the backwash would not allow for a higher backwash rate. We hope that the filter evaluation gave the operators at the Laurel Water Plant some important information for them to work with and possibly improve the overall performance of the filtration process.

The evaluation at the Hardin Water Plant started much the same way as Laurel is. Depths of media from a chosen, worst-case scenario filter were analyzed before and after a backwash. The results of this filter concluded that there were definite visible "dead" spots in the corners of the filters that simply weren't being backwashed at all, much less filtering any water while the filter was on-line. A general conclusion was that the air-scrubber system that is used to clean the upper filter bed and loosen trapped materials just before the backwash cycle starts, was not working properly and would need to be repaired. It is safe to assume that the ports for the air scrubber were probably clogged from years of use and simply won't allow the scrubbers to do their job. The operators at Hardin agreed to investigate further by taking out the filter media and performing a visual inspection. This is of course, a big job! We look forward to the outcome of the investigation.

If your water plant is interested in a filter evaluation, please contact Rick Cottingham in the Helena office @ 444-4019.

Radionuclides Rule

By Jenny O'Mara

With a New Year upon us, it's time to think about new rules that could effect your water system. In particular, there have been several changes to the Radionuclides Rule. This rule is applicable to community water systems only. Changes to the rule include: a new maximum contaminant level (MCL) for uranium which was previously not regulated; revisions to the monitoring requirement for combined radium-226 and radium-228; and monitoring at each entry point every three, six or nine years as opposed to one sample from distribution every four years. The table below shows the regulated radionuclides and the corresponding maximum contaminant levels.

Table I. Regulated Radionuclides.

Regulated Radionuclide	MCL	MCLG
Gross Alpha Particle	15 pCi/L	0
¹ Combined Radium 226/228	5 pCi/L	0
Uranium	30 µg/L	0

¹ radium-226 and radium-228 should be analyzed separately but the results are combined for compliance with the MCL

Community systems with historical radionuclide data should take a sample at each entry point this year, and analyze the sample for gross alpha, radium-226, and radium-228. This will fulfill the requirements to grandfather data and the system will not be required to do quarterly monitoring in 2004. The results from the entry point sample will determine the monitoring schedule—with the first compliance period starting in 2008. Community water systems will not need to sample for uranium provided the gross alpha results are less than 15 pCi/L. See Table II.

Table II. Monitoring Frequency.

Initial Monitoring	Reduced Monitoring ² (determined after initial monitoring is completed)
Historical data plus Entry Point sample(s) for gross alpha, radium-226 and radium-228 between 6/2000 and 12/8/2003 Or **Four consecutive quarters of monitoring at each entry point between 12/31/03 and 12/31/07.	Sample every nine years if the average of the initial monitoring for each contaminant [*] is below the detection limit.
	Sample every six years if the average of the initial monitoring for each contaminant [*] is at or above the detection limit but at or below ½ the MCL.
	Sample every three years if the average of the initial monitoring for each contaminant [*] is above ½ the MCL, but at or below the MCL.
	Continue Quarterly sampling if results are above the MCL until system has four consecutive quarters of monitoring below the MCL.

² The first compliance period starts in 2008.

^{*} Reduced monitoring is established based on the combined value of radium 226 and 228—not for each.

******Systems may composite up to 4 consecutive quarterly samples if analysis is completed within 1 year of first sample. Systems may be able to waive the final two quarters of monitoring.

Most of the labs in Montana have Radionuclide sample bottles available. However at this time, only Energy Laboratories in Casper, Wyoming; and Montgomery Watson Laboratories in Pasadena, California are state certified to perform the analysis. Changes to this rule can be confusing—but in the end—most systems will take fewer samples over a longer period of time. If you have any questions, please contact Jenny O'Mara at 444-5318 or the Community Services Bureau at 444-4400.

WEFTEC 2001 Notes
Atlanta, GA
Oct 13-17, 2001

Thanks for the opportunity to represent MWEA at WEFTEC. What an experience! Highlights:

It was interesting to see how WEF "works"; similarities between WEF and MWEA and the differences; how a "federation" serves as an umbrella for all the MA's; to meet other MA's representatives; and notably, to meet WEF staff members and to find out that they are there (as is WEF) solely to facilitate and help the MA's.

Attendance. It was stunning to meet people from all over the world who care about water quality. The impact of the September 11 attacks on our country was evident: conference attendance was down somewhat from the expected 17,000 – but there were about 15,000 registrants who did attend. Folks from overseas braved not only terrorist threats but also the high value of the US dollar to be there. WEF has 77 MA's – 38 are from the US. Many WEF Board Members you'd expect to not be there weren't. One example is the Palestinian MA Director was absent. According to a Japanese MA representative, the Japanese delegation usually brings over 30 people and this year only 3 came. But many people did come. I met folks from all over: notably the Netherlands, Japan and New Zealand. Montana was represented (and represented well!) by Kristi Kline, and (I heard that) Bob Peccia and Joni Emerik were also there.

I feel strongly that MWEA should try to support WEFTEC attendance of our membership, especially Committee Chairs and Board members interested in attending WEFTEC. It is a valuable experience on many levels. Helps enthusiasm.

I had lunch one noon with Dr. Amirtharajah. He said hello to everyone!

Alliance with other small and nearby MA's.

I spent time networking with other "small MA's" (less than 200 members) and nearby MA's. I forwarded a copy of the Montana Long-Range Plan to the South Dakota MA, as Phyllis Eastman had told them we had a good one. The Northwest Water Pollution Control Association, and British Columbia's MA are two allies that were interested in coordinating on workshops and announcements. It was encouraging to meet New Jersey MA representatives (with 2000+ membership in their MA) who thought that the Montana MA membership of about 130 folks was impressive – given our state population of less than a million! (Think about it – that's not bad!)

But, I'll start at the beginning:

The first day (Saturday) there was an orientation session in the morning. The Board of Directors Meeting followed that. The orientation session was invaluable.

(I encourage you to view slideshows of these presentations and the 2002 budget at:

<http://www.wefnet.org/board/Resources/resources.htm> These are also in a "Board of Directors' Meeting" book I'd be happy to loan. Take a minute to look over the WEF Yearbook you receive in the mail AND/OR the WEF web site: <http://www.wef.org/> They are useful and cover some of the organization layout and include the WEF Constitution.)

Quincalee Brown, (now ex-) WEF Director made a presentation. There was lots of joking and reminiscing, as she was leaving the Directorship. We heard stories about how it was hard to pick the Executive Director when she was hired 15 yrs ago. How amazing it was that a woman with no wastewater experience was chosen as Director back then and how she had really been at the helm during many significant changes to the organization. (More on that later.)

First Quincalee gave a bit of history: The American Sewage Works Association was founded in 1928. Change name to Water Pollution Control Association in 1969. In 1991 the name was changed to Water Environment Association.

Incoming Director William Bertera was introduced.

Joe Stowe, (now Past-) WEF President presented information on WEF governance; he described the Executive Committee's Roles and Responsibilities. The Executive Committee is made up of members appointed by the current President. The Executive Committee serves the Executive Board, and generally keeps things running.

President Stowe reviewed the position description for the Board of Directors including responsibilities to the Board, to the MA and to participate on Committees; and presented information on WEF Directors' responsibilities for "Hosting WEF Representatives at MA Annual Meetings" was reviewed. A legal briefing was then presented by Counsel Irv Cohen.

Al Gray presented the Business Plan. The three strategic thrusts of WEF are:

- Attract younger professionals
- Redefine WEF's global presence
- Improve service to utilities

A Budget briefing was presented by Erwin Odeal. In short: Due to the current recession, changes in organizational demographics and the shift from paper to electronic products, trends are downward for: membership, publications and advertising. However, WEFTEC and specialty conference attendance is trending upward, as are on-line web use and on-line publication sales. These trends are anticipated to continue. WEF staff has been cut from 123 in March 2001 to 102. 118 Board-approved positions exist. The 2002 Budget prepared in August 2001 had to be revised for the November meeting, due to continued income "erosion". The bottom line shows a \$14000 deficit. The final amount will be dependent on the final WEFTEC net income. WEFTEC is the major source of funds for the organization (much like MWEA). The lack of diversification of income was discussed.

Next, there was a discussion of an issue that would be voted on later in the Board Meeting: To change the WEF Constitution and Bylaws to change the authority to appoint the Executive Director from the full Board of Directors to the Executive Committee. I'd like the MWEA Board's input on this issue.

Dr. Quincalle Brown gave several addresses based on lists. Here are some notes:
Top Ten list.

1. Name change
2. New building
3. Mission statement
4. WERF
5. Process of discussion
6. Computer system
7. WEFTEC growth
8. Operations challenge
9. Organizational growth (57 to 77 MA's)
10. Logo "protect & enhance the global water environment."

Issues / "strategic dialogs" for associations' long term

1. "meaning matters" (competition)
2. "glocal" = global + local
3. inclusively of all people
4. learning culture
5. transparency (MA's become more relevant, share information, adapt to local)

HERE's A LIST OF PROGRAMS that I found of interest:

Student Design Competition program. A "Design Competition" session was presented at WEFTEC. The goal is to make this a national program that attracts students to WEF.

I attended this & this would be a good way to get our University Professors interested in WEF.

The Student Design Competition is being promoted to try to get the same level of participation as Operations Challenge. The "rules" and Guidelines are in a draft form.

Each MA sponsors a team of students who design and present a solution to a "real world" problem statement.

Stockholm Jr. Water Prize. WEF's Public Education Committee and ITT Industries held a reception for the Canadian and U.S. Winners of the Stockholm Junior Water Prize.

35 MA's participated in WEF's 5th year of supporting the Stockholm Jr. Water Prize. MAs will soon receive Stockholm Junior Water Prize (SJWP) kits with instructions for fielding candidates to the 2001 U.S. National SJWP competition. MAs will organize judging panels to select SJWP winners from each state. Nominees are eligible to be sponsored by the MA to the first on-site competition in Dallas, Texas, May 30, 2001. To field a candidate, MAs need only provide airfare for the student and an accompanying adult. WEF, ITT Industries, and the WEA of Texas are sponsoring the national event. For more information visit: <http://www.wef.org/publicinfo/stockholm>

WEF Teach. Kristi participated in this. Atlanta-area middle school science teachers were the guests of WEF and the Georgia Water & Pollution Control Association at the 7th annual *WEF Teach*. Workshops featuring *The Water Sourcebook*, *WET in the City*, *Urban Water Testing Kit*, and *Conserve Water* curriculums sent teachers home with more than \$200 in hands-on applications. Classroom water quality learning was enhanced even further by the award-winning video on non-point source protection – *Frogline*; and *Aqua Venturer*, WEF's new interactive CD-ROM game that allows students to travel through time and around the globe to discover what impact our regard for water has on the development of civilization.

WEF Teach is supported by a partnership including: Montgomery Watson, Coca Cola, OMI, LaMotte Company, Council for Environmental Education, U.S. Environmental

Boy Scout Jamboree. WEF had an exhibit at the Jamboree for the second year in a row. MWEA contributed \$100. WEF volunteers participated in this event.

Training CD's. Electronic publications are being promoted as a sort of alternative to the AWWA satellite downlinks. These CD's are "a workshop in a box".

Exhibit Floor. There were 1400 plus exhibitors. It never ceases to amaze me how many different ways people can market software, pumps, tanks, filters, chemical feeders, laboratory equipment, inspection services, etc. Of interest, the WEF Board of Directors membership was asked to do what MWEA Board does – We were each given 6 cards (since Scott was not there I got 12!) each listing a vendor. We were to interview the vendors – to find out how they were doing at the show, if they liked the Atlanta facilities, what could WEF do in future to make their time at WEFTEC more valuable. Most thought it was great. Interestingly, I heard often that they liked that the WEFTEC attendees were the "specifiers (engineers and commune public works personnel).

As with MWEA, the conference is the big money maker for WEF. And vendors are a large part of that.

Technical Sessions. I attended the Small Community sessions. Two themes were reinforced.

1. Providing service to the entire service area when planning wastewater services. This means including solutions other than the "big pipe" and management of onsite/decentralized systems. You have heard all the statistics about septic tank/disposal field systems in this country. Many papers were presented on this topic and the Small Flows Clearinghouse has some excellent materials to help a community that wants to address the whole problem. There are more than 400 onsite/small system management entities in existence.

2. Second, keep it simple. The lagoon's ease and low cost of operation are very important in rural areas. If the lagoon were properly sized and constructed initially, most discharge limit problems can be solved with either a recirculating sand filter or a constructed wetland.

I received a CD (cannot save files or copy it, unfortunately) of the technical presentations. I'd like to route it around the Board Membership. Who would like to borrow it? (Should we do a list so that it gets moved around expeditiously?)

Committee. I attended the Small Community Committee and intend to apply to become a member. This committee provides a liaison between small communities (less than 10,000 population), service providers, agencies, academia, consulting engineers, etc. concerning financing, design, operation & maintenance. The committee solicits papers for the Small Community technical sessions at WEFTEC.



CF Industries, Inc.
NATIONAL WATERSHED AWARD
Partnerships for Water Quality

DATE: Oct. 30, 2001

CONTACT: Beth Koonse, The Conservation Fund, 304-876-2815

John Dewey, CF Industries, 847-438-9500

Ruth Watkins, Tri-State Water Quality Council, 208-265-9092

Tri-State Water Quality Council Receives National Watershed Award

CF Industries and The Conservation Fund Recognize Actions
to Improve Water Quality in Montana, Idaho and Washington

SANDPOINT, Idaho – The Tri-State Water Quality Council based in Sandpoint, Idaho has won the 2001 CF Industries National Watershed Award for the Council's effective nonregulatory approaches to improve water quality. The Council was one of four national winners announced today by The Conservation Fund.

The Council's efforts span from Butte, Montana, to the northern Idaho Panhandle, to northeastern Washington. A diverse group of stakeholders – including citizens, tribes, companies, environmental groups and public agencies – have united to protect the 26,000 square-mile Clark Fork-Pend Oreille Watershed.

Partnerships, nutrient reduction agreements, water monitoring and public education are some of the model programs that placed the group in the winner's circle.

"The Council is delighted to receive this award because it underscores the successes that can be won when a group works together to achieve a common goal," said Ruth Watkins, Executive Director of the Tri-State Water Quality Council. "Through collaboration and consensus, and often working behind the scenes, Council members and subcommittee volunteers have been dedicated to reaching a goal of clean water across the watershed."

"Members of the Council, its subcommittees and volunteers typify the leadership, commitment and innovative ideas necessary to improve our communities, farmland and watersheds," said CF Industries President and Chief Executive Officer Robert C. Liuzzi. "We hope that by showcasing resourceful solutions, other watershed organizations can benefit from the success of similar groups."

-more-

The Tri-State Water Quality Council was formed in 1993 following a study that identified excessive nutrients as the primary water quality issue affecting the water basin. Communities involved in the effort include the Idaho city of Sandpoint and the Montana cities of Butte, Deer Lodge and Missoula.

Highlights of the Tri-State Water Quality Council efforts include:

- A Voluntary Nutrient Reduction Plan to reduce "nutrient loading" by 80 percent among major municipal and industrial sources and by 20 percent from non-point sources along 200 miles of the Clark Fork River in Montana.
- A precedent-setting agreement between Montana and Idaho to protect the water quality in Idaho's Lake Pend Oreille.

- A watershed-wide monitoring program to provide comprehensive information on long-term water quality trends.
- Water quality education and outreach programs throughout the three-state region.
- Technical and financial assistance for communities to develop wastewater treatment and discharge alternatives.
- Leveraging more than \$100,000 worth of in-kind goods and services annually for water quality programs.

The goal of the CF Industries Watershed Award is to recognize model programs that protect the nation's watersheds. Other 2001 award winners announced today are the Champlain Basin Program in New York and Vermont, the Duck Creek Watershed Management Project in Alaska and the Alliant Energy Riverland Conservancy in Wisconsin.

CF Industries is one of North America's largest interregional cooperatives, owned by and serving nine regional cooperatives. The company distributes its nitrogen and phosphate products to farmers and ranchers in 48 states and two Canadian provinces. CF is headquartered in Long Grove, Ill. www.cfindustries.com

The award is administered by The Conservation Fund, a nonprofit organization based in Arlington, Va., that acts to protect the nation's land and water resources. The Conservation Fund works in partnership with other organizations, public agencies, foundations, corporations and individuals. Since its establishment in 1985, the organization has helped its partners safeguard wildlife habitat, greenways, community "greenspace" and historic sites totaling three million acres throughout the United States. Fundraising expenses make up just 1 percent of the organization's total expenditures.

-end-

EDITOR: For a map of the Clark Fork-Pend Oreille Watershed and for more information and photos, visit www.tristatecouncil.org.



National Emergency Response and Rescue Training Center (NERRTC)

***Texas Engineering Extension Service (TEEX)
Texas A&M University System (TAMUS)***

Course Title: Public Works: Planning for and Responding to Terrorism/WMD

DoJ/OSLDPS Level of Training: Operations

Delivery Location: Jurisdiction

Course Length: Three days or 24 course hours

Course Overview: This course trains public works managers and supervisors in their critical infrastructure and public services responsibilities and roles as they relate to a community's preparation and response to a weapon of mass destruction (WMD)/terrorism incident. Upon course completion, the participants will be able to effectively contribute to the management of a WMD/terrorism incident as members of the jurisdiction unified command structure. The course delivery methodology consists of lectures, small group discussions, case studies, and scenario-driven activities. Participants conclude the course with an activity designed to improve and enhance the public works emergency response plan.

Participant Audience: Each jurisdiction should develop a multi-discipline incident management team capable of responding to either the crisis or the consequences of a WMD or terrorist incident. We encourage jurisdictions to assemble a balanced combination of personnel from local agencies to include representatives of ***public works, fire services, hazardous materials response, law enforcement, emergency medical services, public health, and emergency management*** personnel from other emergency management agencies located within the jurisdiction.

NERRTC:

The National Emergency Response and Rescue Training Center (NERRTC), based in College Station, Texas, is part of the Texas Engineering Extension Service (TEEX) and the Texas A&M University System (TAMUS).

The National Emergency Response and Rescue Training Center (NERRTC) has developed courses as part of the National Domestic Preparedness Consortium's curricula to improve the abilities of jurisdictions to combat terrorism. With the threat of terrorism on the rise, critical public infrastructure is an obvious target. In the event of a terrorist incident, public works personnel will play a crucial role in the response by providing valuable resources and expertise. *Public Works: Preparing for and Responding to Terrorism/Weapons of Mass Destruction*, a management-level course, is one of several courses taught by NERRTC. The Department of Justice (DOJ) sponsors and funds this course.

Course Size: 40

Course Point of Contact: Roy Robinson
(800) 824-7303 or (979) 458-6758

Jurisdictional Support and Coordination Requirements:

Each jurisdiction that schedules and agrees to serve as the “host” for the course must help organize participants and supply other personnel and equipment support:

Personnel:

- One primary point of contact (POC) with phone, fax, e-mail and mailing address for coordinating all course scheduling and administrative support.
- An optimum class size is **40** course participants and **maximum of 60 (size of class is based on the facilities and equipment).**
- Organize and roster course participants into small groups of six to eight participants.
- Small groups should consist of one participant per emergency first-responder discipline (Emergency Management, Emergency Medical Service, Public Health, Fire, Law Enforcement, HazMat, and Public Works).
- Provide to each participant a copy of the course roster that at a minimum should include name, department, phone number, and email address.

Facilities and Equipment:

- A classroom for 40 - 60 participants, capable of supporting small group activities.
- Identify four critical infra-structure facilities to be used for Module 3 (Vulnerability Assessment) small group activity.
- One jurisdiction map of per small group for use in the activities.
- Provide a videocassette recorder, television, viewing screen, projection system and a microphone system for the instructors (if needed). Equipment will be provided by NERRTC if any item is unavailable.

NERRTC Contributions:

NERRTC will provide each jurisdiction with the following:

- The instructor team
- All instructional materials and handouts
- Certificates of completion for all course participants attending 85% of the course
- Funding for the instructor team (including travel and per diem costs) and all instructional materials.

There are no direct costs or course costs to the jurisdiction. NERRTC and TEEX do *not*, however, cover the costs of jurisdictional salaries nor travel and per diem costs for course participants, should they be required.

Public Works: Preparing for and Responding To Terrorism/WMD

YOUR DESIGNATED FACILITY

YOUR SCHEDULED DATE

8:00 A.M. – 5:00 P.M.

Please complete form and return to **YOUR MAILING ADDRESS** or fax at **YOUR NUMBER**, no later than **YOUR SCHEDULED DATE**. Should you have any questions, please do not hesitate to call **YOUR NUMBER**.

REGISTRATION FORM

NAME: _____
ORGANIZATION: _____
ADDRESS: _____
PHONE: _____
EMAIL: _____

We sincerely appreciate your interest in this class. Our experience has shown that maximum benefit is derived by the jurisdiction when the following disciplines (Fire, Law Enforcement, Emergency Medical Services, Public Health, HazMat, Emergency Management, and Public Works) participate in this course. The following list of various disciplines and departments is not all-inclusive but if used will contribute to the success of the course. Fill in the blank spaces to the right of the disciplines and departments with the number of those attending.

Fire _____
Law Enforcement _____
Emergency Medical Services _____
Public Health Department _____
HazMat _____
Emergency Management _____
Public Works _____

Water/Wastewater Operation _____
Utilities (i.e. Electric, Natural Gas) _____
Communications (911/Dispatch) _____
Street and Road Maintenance _____
Solid Waste _____
Transportation (to include Traffic Engineering) _____
Facilities _____
Building Inspection/Engineering _____
Other Disciplines/Departments/Private Companies and Organizations
(i.e. Port Authority, National Guard, Financial Institutions, Voluntary Organizations)

2002 MONTANA DROUGHT EDUCATION

Montana Public Water Systems are again facing severe drought conditions for 2002. These are some water saving tips, which your consumers can utilize to assist in relieving some of the stress from the water system. Start educating your community now and informing them about what they can do to help with this natural disaster.

100 Water Saving Tips

#1. There are a number of ways to save water and they all start with you.

#2. When washing dishes by hand, don't let the water run while rinsing. Fill one sink with wash water and the other with rinse water.

#3. Evaporative coolers require a seasonal maintenance checkup. For more efficient cooling, check your evaporative cooler annually.

#4. Check your sprinkler system frequently and adjust sprinklers so only your lawn is watered and not the house, sidewalk, or street.

#5. Run your washing machine and dishwasher only when they are full and you could save 1000 gallons a month.

#6. Avoid planting turf in areas that are hard to water such as steep inclines and isolated strips along sidewalks and driveways.

#7. Install covers on pools and spas to avoid water evaporation.

#8. Use the garbage disposal less often.

#9. Plant during the spring or fall when the watering requirements are lower.

#10. Keep a pitcher of water in the refrigerator instead of running the tap for cold drinks.

#11. Check your water meter and bill to track your water usage.



#12. Always water during the early morning hours, when temperatures are cooler, to minimize evaporation.

#13. Wash your produce in the sink or a pan that is partially filled with water instead of running water from the tap.

#14. Use a layer of organic mulch around plants to reduce evaporation, promote plant growth, and reduce weeds.

#15. Use a broom instead of a hose to clean your driveway and sidewalk and save up to 80 gallons of water every time.

#16. If your shower can fill a one-gallon bucket in less than 20 seconds, then replace it with a water-efficient showerhead.

#17. Reuse the water that you washed produce in for watering houseplants or for cleaning.

#18. Water your lawn in several short sessions rather than one long one. This will allow the water to be better absorbed.

#19. We're more likely to notice leaky faucets indoors, but don't forget to check outdoor faucets, pipes, and hoses for leaks.

#20. Periodically check your pool for leaks if you have an automatic refilling device.

#21. Only water your lawn when needed. You can tell this by simply walking across your lawn. If you leave footprints, it's time to water.

#22. When you shop for a new appliance, keep in mind that one offering several different cycles will be more water and energy-efficient.

#23. Time your shower to keep it under 5 minutes. You'll save up to 1000 gallons a month.

#24. Install low-volume toilets.

#25. Adjust your lawn mower to a higher setting. Longer grass will reduce the loss of water to evaporation.

#26. When you clean your fish tank, use the water you've drained on your plants. The water is rich in nitrogen and phosphorus, providing you with a free and effective fertilizer.

#27. Water small areas of grass by hand to avoid waste.

#28. Put food coloring in your toilet tank. If it seeps into the bowl, you have a leak. It's easy to fix, and can save more than 600 gallons a month.

#29. Plug the bathtub before turning the water on, and then adjust the temperature as the tub fills up.

#30. Use porous materials for walkways and patios to keep water in your yard and prevent wasteful runoff.

#31. Collect and use rain water for watering your garden. (Check to make sure this is legal in your area.)

#32. Designate one glass for your drinking water each day. This will cut down on the number of times you run your dishwasher.

#33. Instead of using a hose or a sink to get rid of paints, motor oil, and pesticides, dispose of them properly by recycling or sending them to a hazardous waste site.

#34. Install a rain shut-off device on your automatic sprinklers to eliminate unnecessary watering.

#35. Don't use running water to thaw food.

#36. Choose a water-efficient drip irrigation for your trees, shrubs, and flowers.

#37. Grab a wrench and fix that leaky faucet. It's simple, inexpensive, and can save 140 gallons a week.

#38. Cut back on the amount of grass in your yard by planting shrubs and ground cover or landscaping with rock.

#39. When doing laundry, match the water level to the size of the load.

#40. Teach your children to turn the faucets off tightly after each use.

#41. Remember to check your sprinkler system valves periodically for leaks and keep the heads in good shape.

#42. Before you lather up, install a low-flow showerhead. They're inexpensive, easy to install, and can save your family more than 500 gallons a week.

#43. Soak your pots and pans instead of letting the water run while you scrape them clean.

#44. Don't water your lawn on windy days.

#45. Water deeply but less frequently to create healthier and stronger landscapes.

#46. Make sure you know where your master water shut-off valve is located. This could save gallons of water and damage to your home if a pipe were to burst.

#47. When watering grass on steep slopes, use a soaker hose to prevent wasteful runoff.

#48. To get the most from your watering time, group your plants according to their water needs.

#49. Remember to weed your lawn and garden regularly. Weeds compete with other plants for nutrients, light, and water.

#50. While fertilizers promote plant growth, they also increase water consumption. Apply the minimum amount of fertilizer needed.

#51. Avoid installing ornamental water features unless the water is being recycled.

#52. Use a commercial car wash that recycles water.

#53. Don't buy recreational water toys that require a constant flow of water.

#54. Turn off the water while you brush your teeth and save 4 gallons a minute. That's 200 gallons each week for a family of four.

#55. Buy a rain gauge to track how much rain or irrigation your yard receives.

#56. Encourage your school system and local government to help develop and promote a water conservation ethic among children and adults.

#57. Teach your family how to shut off your automatic watering systems so anyone who is home can turn sprinklers off when a storm is approaching.

#58. Set a kitchen timer when watering your lawn by sprinkler or hose.

#59. Make sure your toilet flapper doesn't stick open after flushing.

#60. Make sure there are aerators on all of your faucets.

#61. Next time you add or replace a flower or shrub, choose a low water use plant and save up to 550 gallons each year.

#62. Install an instant water heater on your kitchen sink so you don't have to let the water run while it heats up. This will also reduce heating costs for your household.

#63. Use a grease pencil to mark the water level of your pool at the skimmer. Check the mark 24 hours later. Your pool should lose no more than 1/4 inch each day.

#64. Spot spray or remove weeds as they appear.

#65. Use a screwdriver as a soil probe to test soil moisture.

#66. Install a drip irrigation system around your trees and shrubs to water more efficiently.

#67. Mow your lawn as infrequently as possible. Mowing puts your lawn under additional stress, causing it to require more water.

#68. Don't use the sprinklers just to cool off or for play. Running through water from a hose or

sprinkler wastes gallons of water.

#69. Make sure your swimming pools, fountains, and ponds are equipped with recirculating pumps.

#70. Bathe your young children together.

#71. Direct downspouts or gutters toward shrubs or trees.

#72. Winterize outdoor spigots to avoid pipes from bursting or freezing.

#73. Insulate hot water pipes so you don't have to run as much water to get hot water to the faucet.

#74. Drop that tissue in the trash instead of flushing it and save gallons every time.

#75. Wash your car on the grass. This will water the lawn at the same time.

#76. If you have an evaporative air conditioner, direct the water drain to a flowerbed, tree, or your lawn.

#77. Make suggestions to your employer to save water (and dollars) at work.

#78. Use a hose nozzle and turn off the water while you wash your car to save more than 100 gallons.

#79. Support projects that use reclaimed waste water for irrigation and other uses.

#80. Encourage your friends and neighbors to be part of a water-conscious community.

#81. Install a toilet dam or bottle filled with water in your toilet tank to cut down on the amount of water used for each flush. Be sure these devices do not interfere with operating parts.

#82. Install water-softening systems only when necessary. Save water and salt by running the minimum number of regenerations necessary to maintain water softness.

#83. Turn your water softeners off while you're on vacation.

#84. Prune back heavy foliage. Reducing leaf area reduces water needs.

#85. Report all significant water losses (broken pipes, open hydrants, errant sprinklers, abandoned free-flowing wells, etc.) to the property owner, local authorities, or your water management district.

#86. If your grass is brown, it's not dead; it's just dormant. Dormant grass only needs to be watered every three weeks. When the rain begins, your grass will turn green again.

#87. Start a compost pile. Using compost when you plant adds water-holding organic matter to the soil.

#88. Listen for dripping faucets and toilets that flush themselves. Fixing a leak can save 500 gallons each month.

#89. Use sprinklers that throw big drops of water close to the ground. Smaller drops of water and mist often evaporate before they hit the ground.

#90. More plants die from over-watering than from under-watering. Be sure only to water plants when necessary.

#91. Adjust your watering schedule to the season. Water your summer lawn every third day and your winter lawn every fifth day.

#92. Cook food in as little water as possible. This will also retain more of the nutrients.

#93. If it takes you more than a few minutes to shampoo and condition your hair, turn off the faucet while you work each in, then back on to rinse.

#94. Bathe your pets outdoors in an area in need of water.

#95. Choose new water-saving appliances, like washing machines that save up to 20 gallons per load.

#96. Water only as rapidly as the soil can absorb the water.

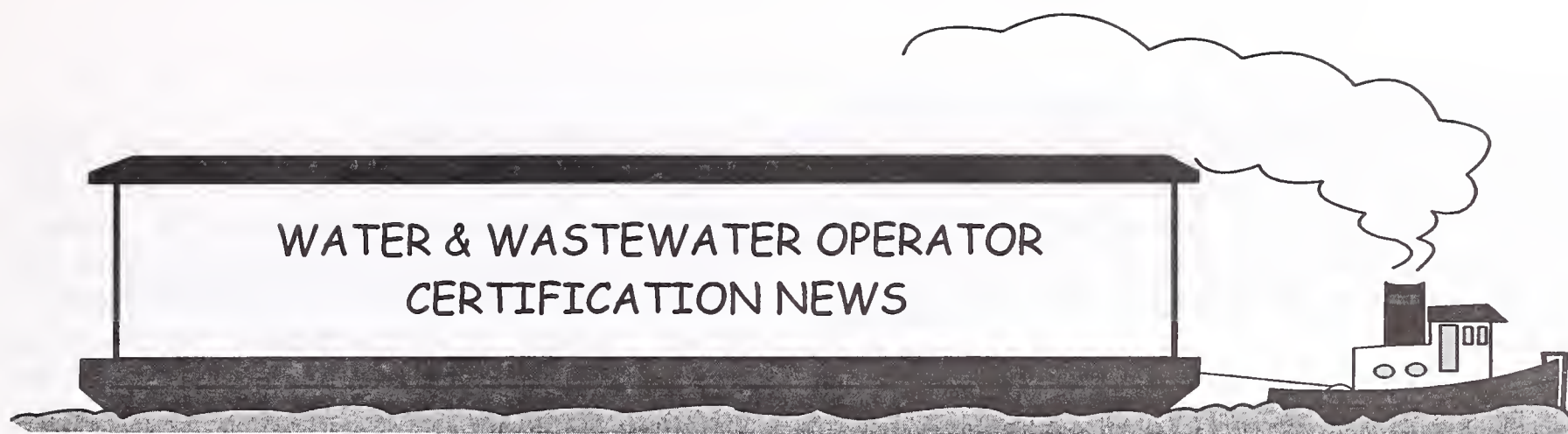
#97. Aerate your lawn. Punch holes in your lawn about six inches apart so water will reach the roots rather than run off the surface.

#98. Select the proper size pans for cooking. Large pans require more cooking water than may be necessary.

#99. Share wateruseitwisely.com with everyone you know.

#100. There are a number of ways to save water, and they all start...and end...with you. Water. Use it Wisely.





by Shirley Quick, Certification Officer

OPERATOR EXPENSE REIMBURSEMENT GRANT FUNDING: WE'RE GETTING EVEN CLOSER!

The following steps have already been accomplished to get us even closer to receiving the United States Environmental Protection Agency (EPA) expense reimbursement grant funding for operators of community or non-transient non-community water systems serving a population of 3,300 or fewer:

- EPA approved the state operator certification program on December 8, 2000;
- EPA finalized their allocation method on December 2000;
- EPA clarified the grant process and started accepting grant requests as of May 2001;
- the Montana legislature approved the spending authority and the hiring of another staff member to administer the reimbursement of the grant money when received as of April 2001;
- the department (DEQ), Water and Wastewater Operators' Advisory Council, and other stakeholders jointly worked on the work plan which determines how to reimburse this money based on EPA's requirements. This work plan was be submitted with the grant application;
- Montana operator certification program submitted a grant request to EPA July 13, 2001;
- EPA gave comments and asked for clarification. A revised grant request was submitted to EPA November 7, 2001;
- Montana operator certification program received verbal approval from EPA December 12, 2001.

These are the next steps that must be done before we can actually start reimbursing operator expenses:

- **EPA must approve the grant request and send written approval to DEQ:** We are hoping to receive this approval by mid-January 2002.
- **EPA must complete the paperwork and send DEQ the first installment of grant funding:** We

are hoping for a January 2002 date, but have no positive date from EPA yet.

- **DEQ Personnel office must classify the new full-time accountant position:** This accountant will develop the reimbursement process and be the reimbursement contact person. We are hoping to have this classification back from the Personnel office in January 2002.
- **Montana must finalize the reimbursement process:** DEQ will advertise and hire the full-time accountant position as quickly as possible after EPA approval is received.
- **DEQ will develop forms and procedures:** The new accountant will work with the certification officer to develop the necessary forms, setup a data tracking system, and other program procedures.
- **DEQ will distribute guidelines and forms:** The new accountant will send out guidelines and forms to all appropriate systems and operators. This information will inform them what expenses will be reimbursed and how to request that reimbursement.
- **Start reimbursing expenses:** We hope to start accepting requests for reimbursement after July 1, 2002. If the above steps are not accomplished in time, we will still try to reimburse retroactive to the July 1, 2002 date.
- **Operators who meet guideline requirements must submit requests:** Be ready to fill out lots of forms, but it will be worth it!

Types of expenses that MAY be reimbursed IF the operator or applicant meets requirements:

- Training course registration fees
- Annual water certification renewal fees
- Mileage to and from the training course
- *Water certification application fees*
- Water examination registration fees
- Training manuals
- Lodging and meals

What does that mean to you, a small water system operator or owner? You shouldn't count on this money until DEQ has actually received the grant funds from EPA. However, it is looking very good that it will happen, and should help small water systems and operators by reimbursing them for certification-related expenses.

The good news is that it looks like we will get the funding and it should last for at least four years.

The bad news is that when this grant funding is gone, there won't be any more. Therefore, now is a good time to start planning to get that backup operator certified in the next few years.

NEW OP CERT DATABASE CRAWLING TOWARDS COMPLETION!

If you have ever had to update a computer database in your business, you realize how grueling this process can be. Our new Oracle database is up and running at approximately a 75% completion rate. As we kept telling ourselves the first few months, it really will be much better than the old database. We hope that the information available and the report capability will ensure a better service to our operators. Thanks for your patience!

THANK YOU, RETA AND ASHLEY!

As you may have noticed if you have called the certification office in the last few months, I have not been in the office much. I am now back part-time (from 8-12 daily) as I recuperate from several health setbacks.

On the other hand, you probably didn't even notice I was gone since the certification office is fortunate to have two excellent staff members who kept things running very smoothly while I was gone. Of course I am talking about **Reta Therriault** and **Ashley Finnegan**.

Reta is the certification process coordinator, so contact her (444-3434) if you want to receive a certification application or study materials, sign up for an exam, or check on the status of your application. Reta is also responsible for tracking to be sure that your system has a fully certified operator in responsible charge of your system. If not, you will be hearing from her. These

are just a few of Reta's many daily responsibilities. She is always more than ready to answer any questions that you may have.

Ashley is the continuing education credit (CEC) process coordinator. Therefore, contact her at 444-4584 if you want to know what your CEC status, if there are any new courses that have been approved, or how to get a course you want to take approved for CECs. Ashley is also responsible for the entire renewal process, so be sure to earn your CECs and send in your renewal fees by June 30, 2002!

Ashley is also our web site coordinator, so go to the following Internet address to see her handiwork:

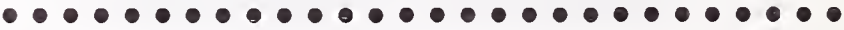
<http://www.deq.state.mt.us/wqinfo/OpCert/Index.asp>
Ashley hopes to have CEC status reports available on the web site sometime in the near future – but first the new database has to be completed so the information is accurate!

**STEVE RUHD AND JIM MELSTAD
REAPPOINTED TO ADVISORY COUNCIL**

Governor Judy Martz reappointed **Steve Ruhd** and **Jim Melstad** to the Water and Wastewater Operators' Advisory Council on September 10, 2001. Steve was reappointed to another six-year term on the Council ending October 16, 2007. Steve currently holds the position on the Council that must be held by a Class 1 water system operator. Steve is the Public Works Director for the City of Conrad.

The Governor also reappointed Jim Melstad as the ex-officio representative from the Department of Environmental Quality. Jim's term ends at the pleasure of the Governor. Jim is the supervisor of the Public Water Supply Section of the Community Services Bureau. The Water and Wastewater Operator Certification program is under Jim in the PWS section.

Congratulations Steve and Jim! Your continued support of the certification program is very much appreciated.



DON'T FORGET:

THE CEC PERIOD ENDS JUNE 30, 2002!

OPERATOR EXAMINATION NOTIFICATION

DEQ PERMITTING & COMPLIANCE
W/WW OP CERTIFICATION

PO BOX 200901, HELENA MT 59620-0901

406/444-3434
FAX: 406/444-1374

(Please print clearly)

OPERATOR NAME: _____ OPERATOR #:

NAME OF SYSTEM OPERATED: _____ PWS#:

MAILING ADDRESS:

CITY: _____ ZIP CODE: _____ DAYTIME PHONE #:

CLASSIFICATION OF EXAM REGISTERING FOR: Class _____ Type

To register for one of the examinations on this form, you must send the following to the above address by the registration deadline date:

1. a completed application for certification as a water operator;
2. the application fees;
3. the examination fees; and
4. a completed copy of this form and the fees for each examination.

[Objects of revenue: A&B water application fee (\$70.) 503104, C&D wastewater application fee (\$70.) 503105, exam fee 503101 (\$70.)]

OPERATOR CERTIFICATION TRAINING AND DEQ EXAMINATIONS					
NOTE: You must also contact the training provider to register for this training (additional fees may be charged)					
Training Provider	Location	Training Dates	Exam Date	Exam Registration Deadline	SIGN UP (check date & site below)
Montana Colony & Rural Water Systems (MRWS)*	Great Falls	01/15-16/02	01/17/02	01/03/02	
MRWS Conference *	Great Falls	02/20-22/02	02/22/02 afternoon	02/07/02	
MRWS Annual Operator Certification (evenings)	Kalispell	03/20-22/02	03/23/02	03/08/02	
METC / 10 th Annual Spring Water Schools **	Billings & Kalispell	03/20-22/02	03/23/02	03/08/02	
METC Small Water/Wastewater Summer Certification School*	Miles City	06/19-20/02	06/21/02	06/06/02	
METC/DEQ/MSU 69 th Annual Fall Water School	Bozeman	09/23-26/02	09/27/02	09/12/02	

*Only Class 4 and 5 water or Class 3 and 4 wastewater exams will be given

**Please note that schools are running concurrently in Billings and Kalispell. Basic Track classes will be offered for those planning to take the examination. (Advanced operators are encouraged to attend other seminars better designed to meet their needs.)

DEQ SPRING EXAMINATIONS			
Examination Location	Exam Date	Exam Registration Deadline	SIGN ME UP (check date and site below)
Billings	03/23/02	03/08/02	
Great Falls	03/23/02	03/08/02	
Havre	03/23/02	03/08/02	
Helena	03/23/02	03/08/02	
Kalispell	03/23/02	03/08/02	
Miles City	03/23/02	03/08/02	
Missoula	03/23/02	03/08/02	

TRAINING SESSION SURVEY			
If possible, please have training in the following city or town:			
Location of system operated	Number of operators we will send to training	Closest municipality we could travel to	Please send me information about future training

TRAINERS TELEPHONE NUMBERS:

Montana Rural Water Systems (MRWS): (406) 454-1151

Montana Environmental Training Center (METC): (406) 771-4433

Montana Department of Environmental Quality (DEQ): (406) 444-3434



PERMITTING & COMPLIANCE DIVISION

CERTIFICATION EXAMINATION NOTICE

SATURDAY -- MARCH 23, 2002: Registration 8:00 a.m.

Examination 8:30 a.m. -- 12:30 p.m.

BILLINGS	<i>Location to be announced later</i>
GREAT FALLS	College of Technology; 2100 16th Ave South; Heritage Hall; room G45-46
HAVRE	MSU-Northern; 300 11th Street West; Hagener Science Center; room 113
HELENA	Cogswell Building; 1400 Broadway; room C209 (use south entrance)
KALISPELL	Kalispell Wastewater Treatment Plant; 2001 Airport Rd, Gate #4; conference room
MILES CITY	Miles Community College; 2715 Dickinson; room 106 (main building)
MISSOULA	Mountain Water Co.; 1345 Broadway; conference room

NOTE, THERE WILL BE NO EXCEPTIONS TO THIS:

By **MARCH 8, 2002** as required by ARM 17.40.208, everyone taking examinations must have:

1. Completed application for certification as a water/wastewater operator;
2. Paid application fees (\$70. for water and/or \$70. For wastewater); and
3. Submitted examination registration slip and fees of \$70.00 per examination.
(Combination examinations 2A3B, 3A4B, 4AB & 5AB count as one exam)

[Objects of revenue: A&B water application fee (\$70.) 503104, C&D wastewater application fee (\$70.) 503105, exam fee 503101 (\$70.)]

To request application materials or to ask for additional information, call the certification office at 444-3434 for Reta Therriault, 444-4584 for Ashley Finnegan or write to:

Department of Environmental Quality

Water/Wastewater Operator Certification
PO Box 200901 – Helena MT 59620-9001

PLEASE KEEP THE UPPER PORTION OF THIS NOTICE

✂

MARCH 23, 2002 EXAMINATION REGISTRATION SLIP

(To register for an exam, detach and return this slip with appropriate fees by MARCH 8, 2002)

NAME: _____ OPERATOR # _____

ADDRESS: _____

CITY: _____ ZIP CODE: _____ TELEPHONE #: _____

SYSTEM: _____

The box marked below is where I will take the examination(s):

☐ Billings ☐ Great Falls ☐ Havre ☐ Helena ☐ Kalispell ☐ Miles City ☐ Missoula

	1	2	3	4	5
A - Water Distribution	_____	_____	_____	_____	_____
B - Water Plant	_____	_____	_____	_____	_____
C - Wastewater Plant	_____	_____	_____	_____	_____
D – Industrial Wastewater	_____	_____	_____	_____	_____

[Objects of revenue: A&B water application fee (\$70.) 503104, C&D wastewater application fee (\$70.) 503105, exam fees 503101 (\$70.)]

2002 Fall Examinations!

Fall Water & Wastewater Exams

Friday, September 27, 2002

MSU-Strand Union Building, Bozeman

Registration @ 8:00 a.m. Examination Period: 8:30 a.m. – 12:30 p.m.

NOTE, THERE WILL BE NO EXCEPTIONS TO THIS:

By SEPTEMBER 12, 2002, as required by ARM 17.40.208, everyone taking examinations must have sent in the following:

1. Completed application for certification as a water and/or wastewater operator;
2. Paid application fee of **\$70.00 per water** and/or **\$70.00 per wastewater**; and
3. Registration slip and fee of **\$70.00 per** examination.

(Combination exams **2A3B, 3A4B, 4AB and 5AB** require **\$70.00 examination fee.**)

[Objects of revenue: exam: exam 503101(\$70.), water app (A&B) 503104 (\$70.), wastewater app (C&D) 503105 (\$70.)

To request application materials or to ask for additional information, call the certification office at 444-3434 for Reta Therriault, 444-4584 for Ashley Finnegan or write to:

**Department of Environmental Quality
Water and Wastewater Operator Certification**

PO Box 200901

Helena MT 59620-0901



Fall Water & Wastewater Exams

Friday, September 27, 2002

MSU-Strand Union Building, Bozeman

Registration @ 8:00 a.m. Examination Period: 8:30 a.m. – 12:30 p.m.

Water & Wastewater Operator Certification

To register for an exam, detach and return this slip with appropriate fees by **September 12, 2002**

1 2 3 4 5

A – Water Distribution _____

B – Water Treatment _____

C – Wastewater Treatment _____

D – Industrial Wastewater _____

Name: _____ **Operator #:** _____

System Name: _____

Mailing Address: _____ **Phone #** _____

City/State/Zip: _____

[Objects of revenue: exam: exam 503101(\$70.), water app (A&B) 503104 (\$70.), wastewater app (C&D) 503105 (\$70.)



MARCH MATH REVIEWS DISCONTINUED:

At the May 17, 2001 Water and Wastewater Operator's Advisory Council meeting, it was decided to discontinue the math reviews that have been held the night before the March exams. This does not include the basic track sessions taught by DEQ at the spring schools in Billings and Kalispell or by MRWS which will continue to be held.

(see your METC training calendar for more information)

If you have any questions about this or the examination process, call Reta Therriault at 406/444-3434.



APPLICANTS PASSING EXAMINATIONS FOR FULL CERTIFICATION

OR OPERATOR-IN-TRAINING (OT) – JUNE 2001 – DECEMBER 2001

CLASS 1's

6009	Anderson, Donald	Pablo	1A	OT
6009	Anderson, Donald	Pablo	1B	OT
5168	Damberger, John	Cut Bank	1B	OT
6004	Gumenberg, Dennis	Great Falls	1B	OT
6012	Lemke, Benjamin	Billings	1B	OT
5184	Morin, Randy	Bozeman	1B	OT
5574	Ronning, Callie	Chinook	1B	OT
5950	Adams, J. Thomas	Bozeman	1C	
6008	Williamson, Lynora	Helena	1C	OT
6002	Graham, George	Billings	1D	
6003	Hughs, James	Billings	1D	

CLASS 2's

6006	Burkardt, Paul	Belgrade	2A3B	OT
6007	Clark, Samuel	Belgrade	2A3B	OT
4681	Morris, William	Browning	2A3B	
5089	Schindler, Kevin	Poplar	2A3B	
6005	Hooze, Terry	Bozeman	2C	OT
5925	Swenson, Chris	Havre	2C	OT
5948	Wright, BJ	Lewistown	2C	

CLASS 3's

4726	Miller, Daniel	Ronan	3A	OT
5712	Clark, Nicholas	Ft Benton	3A4B	
5960	Hanson, H. Kenneth	Big Timber	3A4B	
5654	Kile, Edwin	Columbia Falls	3A4B	OT
6022	LaPlant, Shane	Broadus	3A4B	OT
5993	Lopez, David	Plains	3A4B	OT
5871	Miyake, Michael	Whitehall	3A4B	OT
6006	Burkardt, Paul	Belgrade	3C	
5646	Challoner, Wayne	Wisdom	3C	OT
5813	Chapman, Raymond	White Sulphur Springs	3C	OT
6007	Clark, Samuel	Belgrade	3C	OT
5915	Johnson, Jason	Dillon	3C	OT
5979	Kuntz, Perry	Circle	3C	OT
5993	Lopez, David	Plains	3C	OT
5811	Rauser, Paul	Townsend	3C	
3499	Robertson, Ronald	East Helena	3C	
3181	Smith, Bud	Belgrade	3C	

CONGRATULATIONS! The exams for certification require considerable time in study and preparation. Passing represents a lot of hard work and initiative on the part of the individual. Be sure to show your appreciation to your water and wastewater operator for working hard to ensure that they are properly trained to care for your system.



KEY

A = Water Distribution Operator
B = Water System Operator
C = Wastewater System Operator

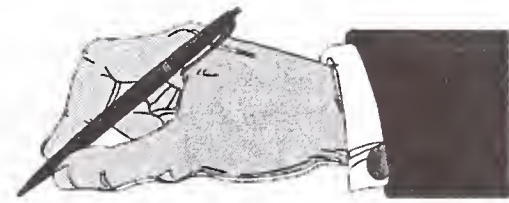
CLASS 4's

5442	Brown, Robert	Thompson Falls	4A	
5429	Chamblin, John	Thompson Falls	4A	
5892	Yocum, Wanda	Melstone	4A	OT
5972	Allen, Michael	Dodson	4AB	OT
5970	Beery, Joe	Richey	4AB	OT
5991	Bishop, Timothy	Bozeman	4AB	OT
5961	Bruner, Gordon	Ryegate	4AB	OT
4933	Chenard, Steve	Bigfork	4AB	
5973	Gopher, Paul	Box Elder	4AB	OT
5986	Henry, Patrick	Helena	4AB	OT
5401	Herzog, Michael	Bozeman	4AB	
6015	Hoadley, Gary	Troy	4AB	OT
5955	Hovde, Richard	Big Sky	4AB	OT
5959	Jarvis, James	Virginia City	4AB	OT
5149	Jingst, Dennis	Kalispell	4AB	
5954	Pariser, Ben	Big Sky	4AB	OT
5985	Reid, Kara	Glacier Park	4AB	OT
5976	Shields, Arnold	Harlem	4AB	OT
5626	Smith, James	Bozeman	4AB	
6052	Waldner, Mike	Sand Coulee	4AB	
5998	Watson, Grant	Lambert	4AB	OT
5988	Wippert, Alvin	Browning	4AB	
4289	Worsley, Cecil	Geraldine	4AB	
5961	Bruner, Gordon	Ryegate	4C	OT
5943	Hartman, Larry	Boulder	4C	OT
5959	Jarvis, James	Virginia City	4C	OT
5664	Wirtz, LaVerle	Outlook	4C	
5892	Yocum, Wanda	Melstone	4C	OT

CLASS 5's

5996	Beese, Marcia	Gardiner	5AB	
6018	Eva, Jodi	Livingston	5AB	
6024	Poole, Andrew	Helena	5AB	
5980	Phillips, Delbert	Lakeside	5AB	
5856	Turner, Hubert	Kalispell	5AB	
0792	Piercy, Tom	Butte	5AB	
5411	Fitzgerald, Tim	Lincoln	5AB	
6030	Johnson, Tina	Hall	5AB	
5770	Walter, Ken	Lewistown	5AB	
5801	Lanktree, Stephanie	Bigfork	5AB	
5399	Larsson, Robert	St Ignatius	5AB	
5992	Vickory, Andrea	Helena	5AB	
5983	Anderson, Gary	Sula	5AB	
5982	Lewis, Amber	Hamilton	5AB	
5967	Welder, Steven	Kalispell	5AB	
5971	Liebl, Steven	Silvergate	5AB	
3699	Johnson, Mike	Dillon	5AB	

OT = Operator-in-Training
AB = Well Water Supply System
D = Industrial Wastewater System Operator



SPRING SCHOOLS FOR OPERATORS

This year, the Montana Environmental Training Center (METC) in conjunction with the Department of Environmental Quality (DEQ) and the Montana Rural Water Systems (MRWS), is sponsoring two Spring Schools. These agencies are working together to provide additional opportunities for water and wastewater system operators and managers to obtain continuing education credits (CECs) or to prepare for and take the Montana Operator examination to become a certified operator.

The schools will be held simultaneously in two locations, Big Fork and Billings, on March 20-22, 2002 at the Marina Cay Resort and the Holiday Inn, respectively. Both sessions will include review sessions for those folks preparing to take operator certification examinations on Saturday, March 23, 2002.

The Spring Schools were started in Miles City ten years ago in an effort by METC and DEQ to help the smaller systems in the state meet the requirement to have certified operators in responsible charge of public water and wastewater systems as required by Montana law. Smaller communities often have problems finding qualified personnel to operate and maintain their public utilities and to carry out the critical sampling necessary to assure safe drinking water and protection of Montana waters. The Spring Schools can help small systems meet their need for certified operators and have focused on training directed toward smaller systems, although large system topics are included in the agendas. Here are some topics that will be at both of these spring schools:

- Security for Water and Wastewater and Emergency Planning
- Surface Water Treatment Rule / Filter Backwash Rule
- WW Treatment Overview
- Distribution and collection systems
- Emergency Preparedness
- Centrifugal Pumps
- Drought & Public Water Supplies
- Source Water Protection
- Mechanical and Industrial Wastewater Treatment
- Laboratory Procedures
- SCADA Systems

We hope that some of these topics will be of value to you or your employees and that you take advantage of attending these sessions at either location. Remember CEC's will be given for attending and there is a chance you could learn something new or maybe brush up on some old skills.

Final Long Term 1 Enhanced Surface Water Treatment Rule

USEPA has finalized the Long Term 1 Enhanced Surface Water Treatment Rule (LT1ESWTR). The purposes of the LT1ESWTR are to improve control of microbial pathogens, specifically the protozoan *Cryptosporidium*, in drinking water, and address risk trade-offs with disinfection byproducts. The rule was published in the Federal Register on January 14th, 2002.

The rule will require certain public water systems to meet strengthened filtration requirements. It will also require systems to calculate levels of microbial inactivation to ensure that microbial protection is not jeopardized if systems make changes to comply with requirements of the Stage 1 Disinfectants and Disinfection Byproducts Rule (Stage 1-DBPR). This rule, which addresses subpart H systems serving fewer than 10,000 persons, builds upon the framework established for larger systems in the Interim Enhanced Surface Water Treatment Rule (IESWTR).

The key early implementation requirement to be aware of is that if any SW system <10,000 has not taken a TTHM & HAA5 sample by 2002 during the month of warmest water temperature and maximum residence time must conduct weekly disinfection contact time calculations for *Giardia* beginning July of 2003.

USEPA Headquarters plans to create an early implementation fact sheet. Keep checking EPA's web site for information **HYPERLINK** <http://www.epa.gov/safewater>

Who must comply with the rule?

The LT1ESWTR applies to all public water systems that:

- 1) Use surface water or ground water under the direct influence of surface water (GWUDI);
- 2) Serve fewer than 10,000 persons.

The rule is expected to apply to more than 11,000 systems that serve nearly 18.5 million Americans.

What does the rule require?

The LT1ESWTR provisions fall into the four following categories:

1) Cryptosporidium Removal

All systems must achieve a 2-log removal (99 percent) of *Cryptosporidium*

2) Enhanced Filtration Requirements

Filtered systems must comply with strengthened combined filter effluent (CFE) turbidity performance requirements to assure 2-log removal of *Cryptosporidium*; and

Conventional and direct filtration systems must continuously monitor the turbidity of individual filters and comply with follow-up activities based on this monitoring.

3) Microbial Inactivation Benchmarking

Systems will be required to develop a profile of microbial inactivation levels unless they perform monitoring which demonstrates their disinfection byproduct levels are less than 80 percent of the maximum contaminant levels (MCLs) established in the Stage 1 DBPR;

Systems considering making a significant change to their disinfection practice must determine their current lowest level of microbial inactivation and consult with the state for approval prior to implementing the change.

4) Other Requirements

Finished water reservoirs for which construction begins 60 days after promulgation of the rule must be covered; and
Unfiltered systems must comply with updated watershed control requirements that add Cryptosporidium as a pathogen of concern.
These requirements were developed based on the IESWTR, but have been modified to reduce the burden on small systems.

When will the changes take effect?

The rule is effective 30 days after publication in the Federal Register; however, each of the requirements has a different compliance date. The table below provides the applicable dates.

Rule Requirement	Compliance Date
New reservoirs must be covered	60 days after LT1ESWTR promulgation
Systems 500 or greater begin to develop profile	July 1, 2003
Systems < 500 begin to develop profile	January 1, 2004
2-log Cryptosporidium removal	3 years after LT1ESWTR promulgation
New CFE Turbidity Limits	3 years after LT1ESWTR promulgation
Individual Filter Turbidity Monitoring	3 years after LT1ESWTR promulgation
Unfiltered systems must meet updated watershed control requirements	3 years after LT1ESWTR promulgation

What are the benefits of this rule?

The primary benefits of today's final rule come from reductions in the risk of illness from pathogens in drinking water. In particular, the LT1ESWTR focuses on reducing the risk associated with disinfection-resistant pathogens, such as Cryptosporidium. Other pathogens may also be removed more efficiently due to implementation of these provisions. Exposure to other pathogenic protozoa or other waterborne bacterial or viral pathogens are likely to be reduced by the provisions of this rule as well. In addition to preventing illnesses, this rule is expected to have other non-health related benefits. These benefits result from avoiding non-health related costs associated with waterborne disease outbreaks.

Is funding available to help systems comply with this rule?

Since 1996, the Drinking Water State Revolving Loan Fund has made over \$4.4 billion available to states, which have used the funding to provide loans to help water systems improve their infrastructure. Through December 31, 2000, states had made close to 1,600 loans for more than \$3.2 billion. Other federal funds for infrastructure financing are available through the U. S. Department of Housing and Urban Development's Community Development Block Grant Program and the Rural Utilities Service of the U.S. Department of Agriculture. EPA also provides program management funding to states that have primary enforcement responsibility for their drinking water programs through the Public Water Systems Supervision (PWSS) grants program.

Where can the public get more information about this final rule?

For general information on the LT1ESWTR, contact the Safe Drinking Water Hotline, at (800) 426-4791, or visit the EPA Safewater website, <http://www.epa.gov/safewater/mdbp/lt1eswtr.html>

For copies of the Federal Register notice of the final regulation or technical fact sheets, contact the Safe Drinking Water Hotline at (800) 426-4791. The Safe Drinking Water Hotline is open Monday through Friday, excluding Federal holidays, from 9:00 a.m. to 5:30 p.m. Eastern Time.



EPA Announces Arsenic Standard For Drinking Water of 10 Parts per Billion

U.S. Environmental Protection Agency Administrator Christie Whitman announced on October 31 that the arsenic standard in drinking water will be 10 parts per billion (ppb). "Throughout this process, I have made it clear that EPA intends to strengthen the standard for arsenic by substantially lowering the maximum acceptable level from 50 parts per billion (ppb), which has been the lawful limit for nearly half a century," Whitman wrote in a letter to the conferees on the Veterans Affairs, Housing and Urban Development and Independent Agencies appropriations measure. "The Bush Administration is committed to protecting the environment and the health of all Americans," Whitman said. "This standard will improve the safety of drinking water for millions of Americans, and better protect against the risk of cancer, heart disease and diabetes."

When the Administrator initiated review of the standard for arsenic, there were indications that additional information was available that had not been considered previously. She asked for time to look at the new science and data that have come to light since the original (1999) study by the National Academy of Sciences on this matter. Whitman also asked that three expert panels review all the new and existing materials. The National Academy of Sciences looked at risk, the National Drinking Water Advisory Council examined

costs to water systems throughout the nation and EPA's Science Advisory Board assessed benefits.

Whitman today reiterated that the additional study and consultation have not delayed the compliance date for implementing a new standard for arsenic in 2006. "Instead it has reinforced the basis for the decision," said Whitman. "I said in April that we would obtain the necessary scientific and cost review to ensure a standard that fully protects the health of all Americans, we did that, and we are reassured by all of the data that significant reductions are necessary. As required by the Safe Drinking Water Act, a standard of 10 ppb protects public health based on the best available science and ensures that the cost of the standard is achievable."

Nearly 97 percent of the water systems affected by this rule are small systems that serve less than 10,000 people each. EPA plans to provide \$20 million over the next two years for the research and development of more cost-effective technologies. The Agency also will provide technical assistance and training to operators of small systems, which will reduce their compliance costs, Whitman told conferees. EPA will work with small communities to maximize grants and loans under current State Revolving Fund and Rural Utilities Service programs of the Department of Agriculture. Last year EPA provided more than \$600 million in grants and loans to water systems for drinking water compliance. "Our goal is to provide clean, safe, and affordable drinking water to all Americans," said Whitman.



Operations and Maintenance Technical Assistance for PWSs

By Marc Golz, DEQ Contract Manager

Would you like to establish better operation and maintenance (O&M) plans, get the advice of experienced operators, or do you need some hands-on assistance with distribution system components, equipment calibration or chemical feed and dosing? Help is available and won't cost your system anything but a few hours.

The DEQ Planning Division funds a contract to provide assistance for small public water systems paid for with State Revolving Fund money through the "set-aside" provision for small systems. The O&M assistance program is available for small (less than 10,000 people) public water systems in Montana. This assistance can be helpful for established operators and may be especially helpful for systems that have new operators or managers. The mission of the program is to help water system staff help themselves using this free service.

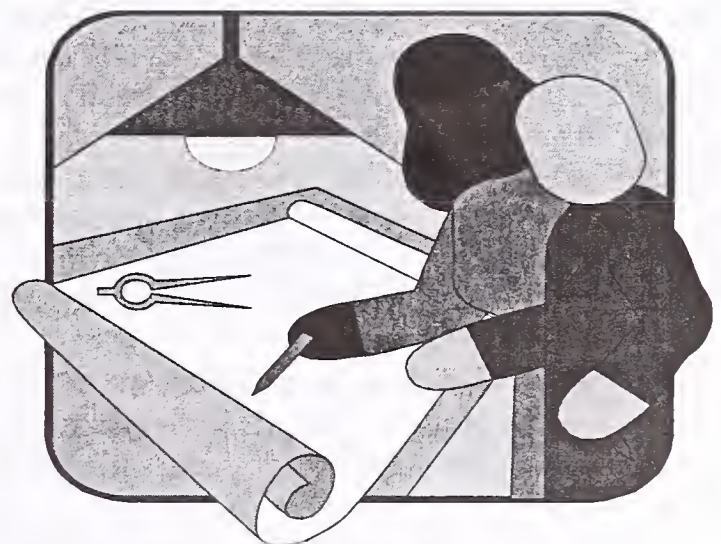
The contractor is the Midwest Assistance Program of Montana. They can help determine who on their staff is best suited to help your system based on your location and the nature of the help needed. The technical assistance (TA) providers are experienced operators who can provide a wide range of services from hands-on help to technical documentation. Many systems that have used this service have requested return visits because of the quality of the help.

The TA visit can be general, encompassing the entire system, or focus on specific issues the owners or operators may have. The TA operator provides solid how-to advice, forms and reference materials. A short note, phone call or email message is all it takes to initiate the process. A TA provider will then call to coordinate a visit to your system, at your convenience. If you want to take advantage of this service please contact one of the following people:

Bill Leonard
MAP Montana Office
P.O. Box 1456
Whitefish, MT 59937
Phone: (406) 863-4900
Email: bleonard@cyberport.net

Tim Miller
Phone: (406) 390-0808
Email: tjmmmap@mcn.net

Paul Torok
Phone: (406) 677-2204
Email: 6772103@blackfoot.net



2002 MWEA / MSAWWA Joint Conference

The 2002 Joint Annual Conference of the Montana Water Environment Association (MWEA) and the Montana Section of the American Water Works Association (MSAWWA) will be held at the Heritage Inn in Great Falls on April 11-12, 2002. The theme for the conference this year is "Montana Waters 200 Year After Lewis & Clark." The opening sessions will take a look at the changes in water uses and water use practices over the past two centuries since those intrepid explorers passed through the Louisiana territories. The conference will be preceded by a pre-conference seminar hosted by MSAWWA on Thursday, April 10, 2002. Information about attending the conference, pre-conference and/or obtaining exhibition space at the conference is available from the conference organizers at: TYGR Management, Carolyn Chaussee, 505 South Roberts, Helena, MT 59601; or, call TYGR at 406-443-5388 or e-mail at tygrmgmt@onewest.net.

Thursday, April 19

Opening Joint Technical Sessions

9:00-10:00 Keynote Address: Lewis & Clark historical theme related to Montana waters 200 years ago and today. Speaker TBA

10:30-11:15 General Session: Topic TBA. Speaker TBA

Afternoon Concurrent Sessions

Water Sessions

1:15-2:00 Drinking Water UV Application, Town of Eureka. Mark Cunnane

2:00-2:45 Centrally Managed POU in Small Water Systems. Gretchen Rupp

3:15 -4:00 Water Session TBA. Speaker TBA

4:00-4:45 Water Session TBA. Speaker TBA

Wastewater Sessions

1:15-2:00 A Mutually Beneficial Partnership: Wastewater Spray Irrigation Provides a Win-Win Situation for the City of Belgrade and the Gallatin Field Airport. Logan McInnis

2:00-2:45 Achieving More with Less: A Flexible, Economical, and Reliable Approach to Aerated Lagoon Treatment for Big Timber, Montana. Scott Murphy

3:15-4:00 Development of New Water Classifications for Ephemeral Streams, Lakes and Ponds and Ditches. Abe Horpestad and Chris Levine

4:00-4:45 Clarifier Testing for Operation Optimization. Tim Hunter

Friday, April 20

Morning Concurrent Sessions

General Interest Topics

10:00-10:45 Effect of Dissolved Oxygen on the First Order Degradation Rate of MTBE. Elsa Meiser

10:45-11:30 The Applications and Limitations of Ultrasonic Flow Meters. Dennis Burgard

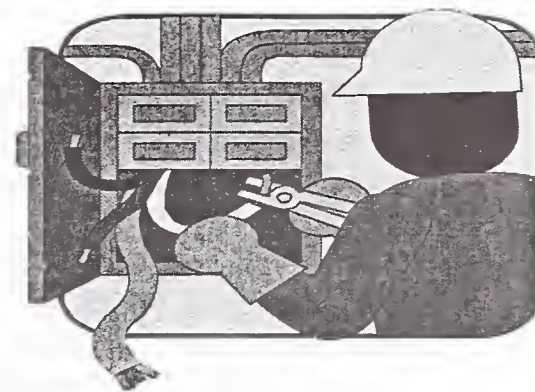
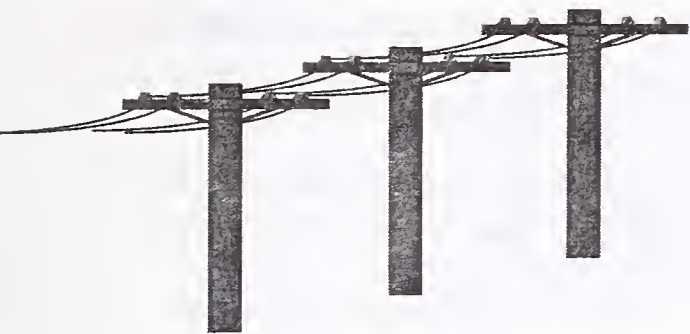
11:30-12:15 Session TBA. Speaker TBA

Regulatory Sessions

10:00-10:45 Recommendations for Compliance with the Stage 1 Disinfectants and Disinfection Byproducts Rule. Doug Strand

10:45-11:30 Session Topic TBA. Janet Cherry

11:30-12:15 Cast-in-Place Manhole Riser/Collars. Vern Hinkle



Checklist: Electrical Safety self-inspection

Bill Bahr

Electrical safety is an issue at every facility. Incorrectly grounded wires, uninsulated power tools, damp workspaces, overhead power lines and inadequately trained employees are just a few of the hazards safety managers have to guard against. This checklist, from the OSHA Office of Training and Education, is by no means all-inclusive. You should add to it or delete portions or items that do not apply to your operations; however, carefully consider each item as you come to it and then make your decision. You will also need to refer to OSHA standards for complete and specific standards that may apply to your situation.

- Do you specify compliance with OSHA for all contract electrical work?
- Are all employees required to report as soon as practicable any obvious hazard to life or property observed in connection with electrical equipment or lines?
- Are employees instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines?
- When electrical equipment or lines are to be serviced, maintained or adjusted, are necessary switches opened, locked-out and tagged whenever possible?
- Are portable electrical tools and equipment grounded or of the double insulated type?
- Are electrical appliances such as vacuum cleaners, polishers and vending machines grounded?
- Do extension cords being used have a grounding conductor?
- Are multiple plug adapters prohibited?
- Are ground-fault circuit interrupters installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed?
- Are all temporary circuits protected by suitable disconnecting switches or plug connectors at the junction with permanent wiring?
- Do you have electrical installations in hazardous dust or vapor areas? If so, do they meet the National Electrical Code for hazardous locations?
- Are exposed wiring and cords with frayed or deteriorated insulation repaired or replaced promptly?
- Are flexible cords and cables free of splices or taps?
- Are clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, equipment, etc., and is the cord jacket securely held in place? Are all cord, cable and raceway connections intact and secure?
- In wet or damp locations, are electrical tools and equipment appropriate for the use or location or otherwise protected?
- Is the location of electrical power lines and cables (overhead, underground, underfloor, other side of walls) determined before digging, drilling or similar work is begun?
- Are metal measuring tapes, ropes, handlines or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors?
- Is the use of metal ladders prohibited in areas where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors?
- Are all disconnecting switches and circuit breakers labeled to indicate their use or equipment served?
- Are disconnecting means always opened before fuses are replaced?
- Do all interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment and enclosures?
- Are all electrical raceways and enclosures securely fastened in place?
- Are all energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures?

- Is sufficient access and working space provided and maintained about all electrical equipment to permit ready and safe operations and maintenance?
- Are all unused openings (including conduit knockouts) in electrical enclosures and fittings closed with appropriate covers, plugs or plates?
- Are electrical enclosures such as switches, receptacles and junction boxes provided with tight fitting covers or plates?
- Are disconnected switches for electrical motors in excess of two horsepower capable of opening the circuit when the motor is in a stalled condition, without exploding? (Switches must be horsepower rated equal to or in excess of the motor hp rating.) Is low voltage protection provided in the control device of motors driving machines or equipment which could cause probable injury from inadvertent starting?
- Is each motor disconnecting switch or circuit breaker located within sight of the motor control device?
- Is each motor located within sight of its controller or the controller disconnecting means capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor?
- Is the controller for each motor in excess of two horsepower rated in horsepower equal to or in excess of the rating of the motor it serves?
- Are employees who regularly work on or around energized electrical equipment or lines instructed in cardiopulmonary resuscitation (CPR) methods?
- Are employees prohibited from working alone on energized lines or equipment over 600 volts?



Checklist: Improving centrifugal pump performance...and profits

Over time, even a small problem can end up costing companies large amounts--such as when centrifugal pumps aren't operating at their peak efficiency. Repair and replacement costs, not to mention increased energy consumption, can usually be avoided with some simple, regular inspections and maintenance. Although this list is not a complete guide to pump inspection and service, it does cover the more common conditions that can impair pump efficiency. It is provided by The Gorman-Rupp Co.

Suction line

- Check for air leaks. Using a vacuum gauge, make sure that the suction line, fittings and pipe plugs are airtight. Some pump brands have a tapped hole for easy connection of a vacuum gauge. Use pipe dope to seal gauges threads and pipe plugs. Replace leaky seals and badly worn hoses.
- Check the suction hose lining. The rubber lining in a suction hose can pull away from the fabric, causing partial blockage of the line. If the pump develops a high vacuum but low discharge, the hose lining may be blocking suction flow. Replace hose.
- Check the suction strainer. Frequent inspection and cleaning of the suction strainer is particularly important when pumping liquids containing solids. The proper size strainer should prevent pump from clogging.

Pumps

- Check impeller vanes, wear plate or wear rings. These components should be inspected every six months or sooner, depending on pump application. They're subject to faster wear when pumping abrasive liquids and slurries.
- Check impeller clearance. If the clearance between impeller and wear plate or wear rings is beyond recommended limits, pumping efficiency will be reduced. If the clearance is less than that recommended, components will wear excessively. If tolerances are too close, rubbing could cause an overload on the engine or motor. Check the impeller clearance against pump manual specifications and adjust if necessary.

- Check the seal. If your pump has a single seal and it is lubricated with the water being pumped, sand and other solids can cause rapid wear. Check and replace the seal if worn. Replace seal liner or shaft sleeve if it has scratches.
- Check bearings. Worn bearings can cause the shaft to wobble. Eventually the pump will overheat and sooner or later it will freeze up and stop. Replace bearings at the first sign of wear.
- Check the engine or motor. The pump may not be getting the power it needs to operate efficiently. The engine may need a tune-up or the motor may need service.

Discharge line.

Check operating condition. Check air release devices, valves, check valves and shock control devices for proper operation. Old discharge lines are subject to internal rusting and pitting, which cause friction loss and reduce flow by as much as 15 percent. Replace a badly deteriorated line.

Portable Potty Keeps Outdoors Great

Human waste on the battlefield is a perennial problem for the U.S. military, and the environmental health hazards it can create--diphtheria, cholera, and other diseases have often caused more deaths than actual combat.



Not just bears. A new

portable toilet makes for cleaner waste disposal in the woods and elsewhere.

Photo credit: Phillips Environmental Products

Traditional handling methods such as burning or burying all have shortcomings. For example, buried waste may leak pathogens into the groundwater. Alan P. Schlie, a force documentation analyst for the U.S. Army Engineering School at Fort Leonard Wood, Missouri, believes the solution may lie in the PETT™ (short for Phillips Environmental Toilet), a portable toilet his unit recently field-tested. "The way the PETT is designed makes it easy to

transfer and dispose of waste," Schlie explains. "I believe the PETT will eliminate the waste disposal problem in the military."

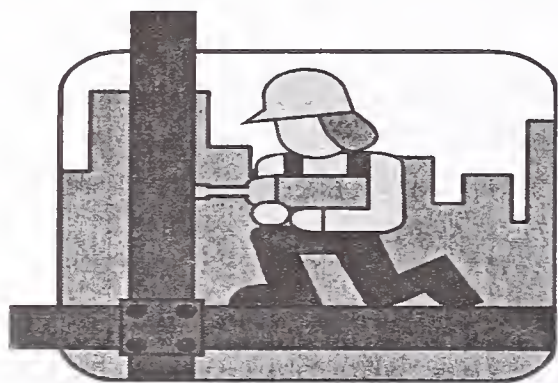
The PETT is the only portable toilet on the market to use disposal bags that degrade along with the waste, unlike the usual plastic waste bags. The bags are labeled a Group II (nonhazardous) waste product--the same as regular garbage--in the 47 states that classify them. The used bags can thus be put in a regular solid waste landfill.

Each waste bag kit uses dual degradable bags that can be used about 5-10 times. They contain an absorbent powder that neutralizes odors; gels waste, and initiates the decay process. The PETT is the size of a standard toilet, but weighs only seven pounds and can function in temperatures ranging from -40°F to 140°F. "We believe our product is eco-friendly as well as sanitary, because it's designed to prevent spilling and splashing," says Bill Phillips, CEO of Phillips Environmental Products, the Bozeman, Montana, company that developed the toilet.

The PETT is being considered for use in protected areas under the Bureau of Land Management (BLM) and the National Forest Service. "Many people like to create a Lewis and Clark-type expedition in these areas," says Pat Crowley, solid waste regulatory program manager with the Montana Department of Environmental Quality. "They dig their pit toilets at the campsites . . . and in no time you have dozens of smelly holes in the ground. The sites become littered with human waste and strewn toilet paper. It's unsanitary and looks real ugly."

In a 15 May 2001 letter to Phillips, senior specialist Gary Marsh wrote that the BLM does not object to the use of the PETT along with other acceptable human waste disposal systems currently in use. Marsh stressed, however, that "great emphasis must be placed on educating the user and monitoring [the bags'] disposal," and that if PETT bags are found to be improperly disposed of in protected areas such

as federal or state campgrounds, the BLM would "have to re-evaluate their usefulness."



Horseshoe Bend Water Treatment Plant

Daryl Reed

Due to the suspension of mining by Montana Resources in Butte, contaminated surface water (called Horseshoe Bend) that was being used in the mine operation is again flowing to the Berkeley Pit. The 1994 Record of Decision (ROD) for the Butte Mine Flooding Operable Unit (BMFOU) Superfund National Priorities List site requires this flow to be diverted from the pit to decrease the filling rate of the pit. The Horseshoe Bend (HSB) flow was diverted from April 1996 until mining was suspended in June 2000. The ROD also requires that if the HSB water can not be used in the mine operation, a treatment plant needs to be built.

The Environmental Protection Agency (EPA) and Montana Department of Environmental Quality (DEQ) have reviewed and approved the Treatment Facility Design documents that describe the proposed innovative treatment process. It is basically a two-stage lime precipitation with aeration (which was identified as the preferred alternative in the Feasibility Study) but will utilize High-Density Solids (HDS) approach in both precipitation stages. The HDS process "recycles" the sludge that promotes growth of larger, denser particles and greatly reduces the volume of sludge.

The two-stage process is a result of the Remedial Investigation/Feasibility Study for the BMFOU (Canonie, 1994), which showed aluminum, which has its minimum solubility around neutral pH, would re-dissolve excessively at the higher pH ranges needed to precipitate other metals such as manganese and zinc.

Phillips Environmental Products is now looking for ways to sell the PETT in the consumer market. Wal-Mart is taking a serious look at the toilet, and the company has been in negotiations with potential partners in Japan and Canada. Says Phillips, "My marketing experience told me that there is a tremendous need for something like the PETT." -Ron Chepesiuk

The first stage will raise the pH of this water from 3.2 to 6.0, which will remove a portion of the contained sulfate as calcium sulfate (CaSO_4), as well as aluminum, ferric iron, and a portion of the copper as hydrolyzed solids.

The second stage will raise the pH of this water to approximately 9.0 to 9.5 by the addition of more lime and aeration, which will remove more sulfate as calcium sulfate, and will remove more zinc, cadmium, the remaining iron, and much of the manganese as hydrolyzed solids. Aerating the slurry to oxidize iron will take advantage of the adsorptive properties of ferric and manganese hydroxides.

In each stage of the HDS process, much of the sludge underflow from the solids settling unit is recycled and mixed with lime, and the resulting mixture is then used to achieve the pH adjustment of the feed stream. This approach promotes the formation of precipitated solids on the surface of existing solids, rather than forming new, colloidal-sized particles. This ultimately results in larger, denser particles, which settle faster and into smaller volumes than conventional precipitation systems. Bench scale tests indicate there may be almost an order of magnitude less sludge with the HDS process.

Due to the reduced sludge volume, it is anticipated that the sludge can be deposited in the Berkeley Pit instead of in a surface repository. The addition of high pH sludge in the pit may have a beneficial effect of raising the pH of the pit water from the current value of 2.9 and thus reduce the toxicity of this water without reducing the metal content. Recovering copper and zinc (resource recovery) from the pit water is an important consideration to many people in the Butte area.

Metal recovery from the Berkeley Pit water was being conducted prior to the suspension of mining activities and could be conducted on the pit water

prior to treatment if it is economically viable to do so at the time. The projected date when the pit reaches the Critical Water Level is currently 2016. The HSB Treatment Facility is being designed to

treat the combined flow of the HSB and the Berkeley Pit, which is anticipated to be approximately 3 million gallons per day (MGD) each, for a total flow of 6 to 7 MGD.

MWEA Photo Contest

"Sewage Is Lovely!"

Announcing the first annual Montana Water Environment Association's PHOTOGRAPHY CONTEST. The contest will take place at the Joint MSAWWA MWEA Conference. This year the Conference is April 10-12 in Great Falls.

As wastewater professionals we have all experienced the beauty of biosolids, the awesome sunrise over the aeration basin, the quiet honk of geese grazing at the lagoon. This is your chance to share that beauty with others!

Bring your favorite wastewater photos to the Conference. They should be mounted, ready for showing.

They will be displayed at the Montana Water Environment Association's booth for the duration of the conference. Winners to be announced & prizes distributed at Luncheon Banquets Friday, April 12.

RULES:

One entry per person per category. Categories: wastewater, biosolids, fun with sewage, professionalism, ????

JUDGES:

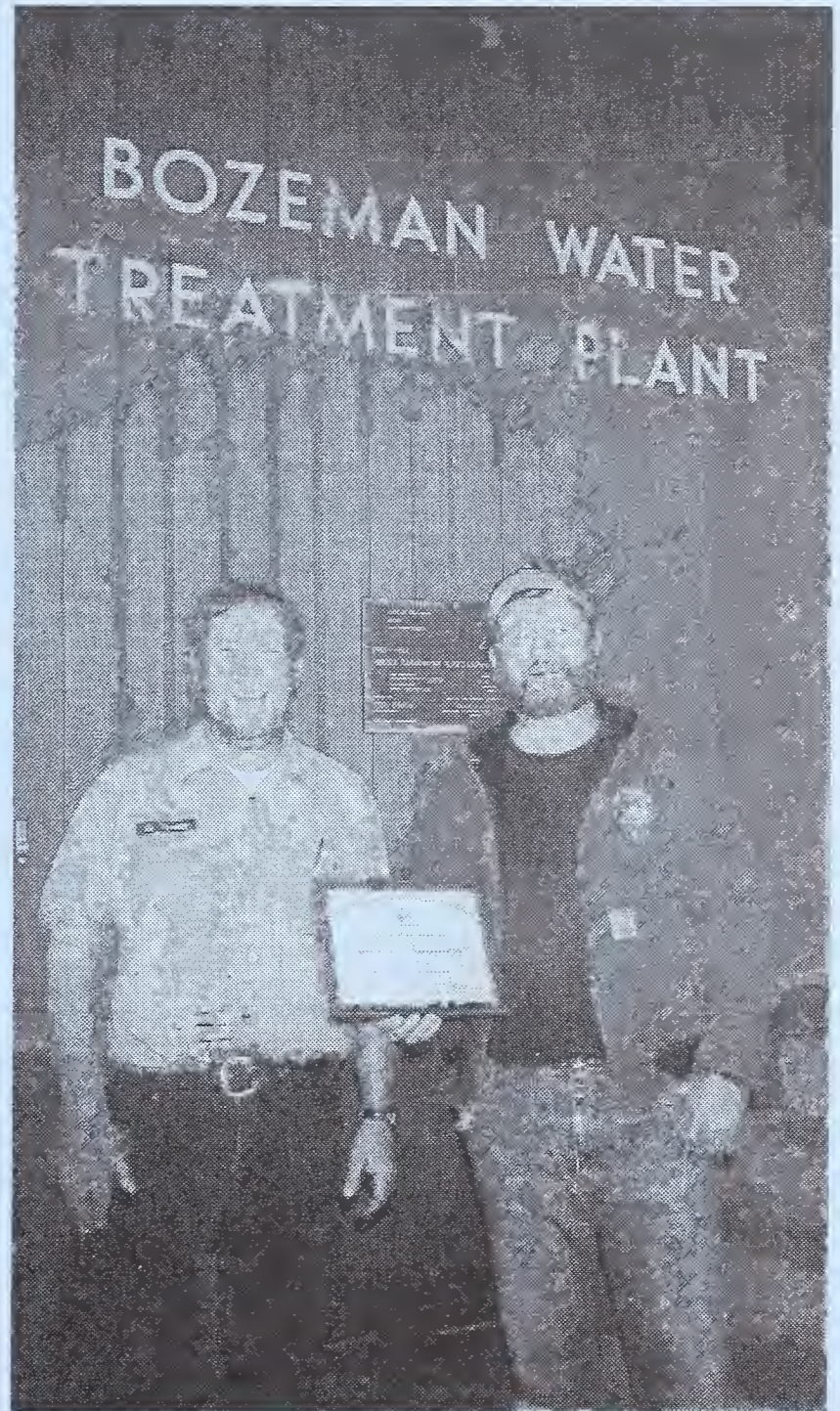
Mr. Jerry Burns

Other distinguished MWEA members

PRIZES:

Better than your wildest dreams.

Annual MSAWWA Safety Award Winner



Bozeman Water Treatment Plant gets recognized for outstanding safety practices. Dean Elliot and Rick Moroney receive the MSAWWA Safety award for the Bozeman water Plant.



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Planning, Prevention and Assistance Division
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